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10/088866

10/058903

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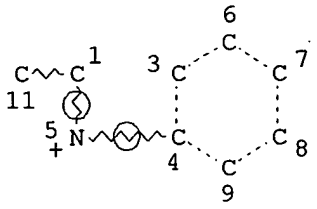

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CONNECT IS X2 RC AT 6
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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
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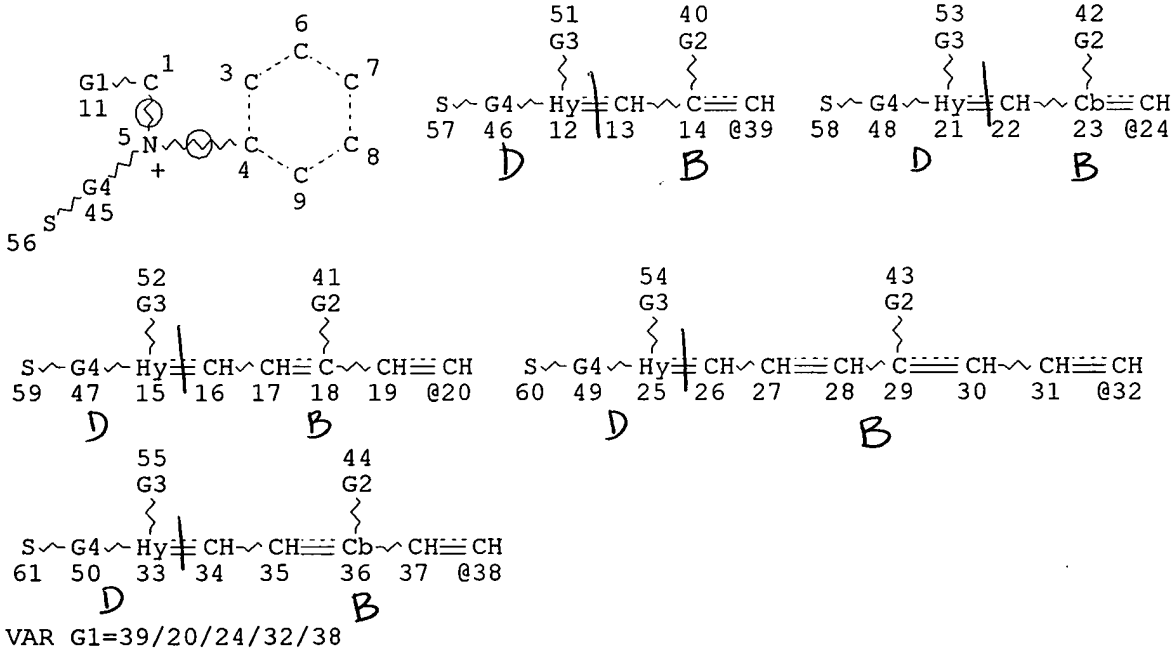
L61 STR



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REP G4=(1-4) C
NODE ATTRIBUTES:
CHARGE IS *+ AT 5
CONNECT IS X2 RC AT 6

Searcher : Shears 571-272-2528

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CONNECT IS X2  RC AT   9
DEFAULT MLEVEL IS ATOM
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GGCAT   IS PCY  AT  25
GGCAT   IS PCY  AT  33
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1 N  AT  12
ECOUNT  IS M1 N  AT  15
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GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS  59

STEREO ATTRIBUTES: NONE
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← Limit to one (1) comp'd.

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     FILE 'CAPLUS' ENTERED AT 12:16:37 ON 14 JAN 2005
L68          162 S L67
L69           14 S L68(L)(?CONJUGAT? OR ?LINK?)

E1 THROUGH E45 ASSIGNED

L69  ANSWER 1 OF 14  CAPLUS  COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER:         2004:775925  CAPLUS
DOCUMENT NUMBER:          141:421859
TITLE:                    Developing a peptide-based near-infrared molecular
                          probe for protease sensing
AUTHOR(S):                Pham, Wellington; Choi, Yongdoo; Weissleder, Ralph;
                          Tung, Ching-Hsuan
CORPORATE SOURCE:         Center for Molecular Imaging Research, Massachusetts
                          General Hospital, Harvard Medical School, Charlestown,
                          MA, 02129, USA
SOURCE:                   Bioconjugate Chemistry (2004), 15(6), 1403-1407
                          CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER:                American Chemical Society
DOCUMENT TYPE:            Journal
LANGUAGE:                 English
AB   Recently near-IR (NIR) mol. probes have become important reporter mols.
     for a number of types of in vivo biomedical imaging.  A peptide-based NIR
     fluorescence probe consisting of a NIR fluorescence emitter (Cy5.5), a NIR
     fluorescence absorber (NIRQ820), and a protease selective peptide sequence
     was designed to sense protease activity.  Using a MMP-7 model, we showed
     that NIRQ820 efficiently absorbs the emission energy of Cy5.5 resulting in
     a low initial signal.  Upon reacting with its target, MMP-7, the
     fluorescence signal of the designed probe was increased by 7-fold with a
     Kcat/Km of 100 000 M-1 s-1.  The described synthetic strategy should have
     wide application for other NIR probe prepns.
IT   795315-56-9DP, conjugates with resin
     795315-57-0DP, conjugates with resin
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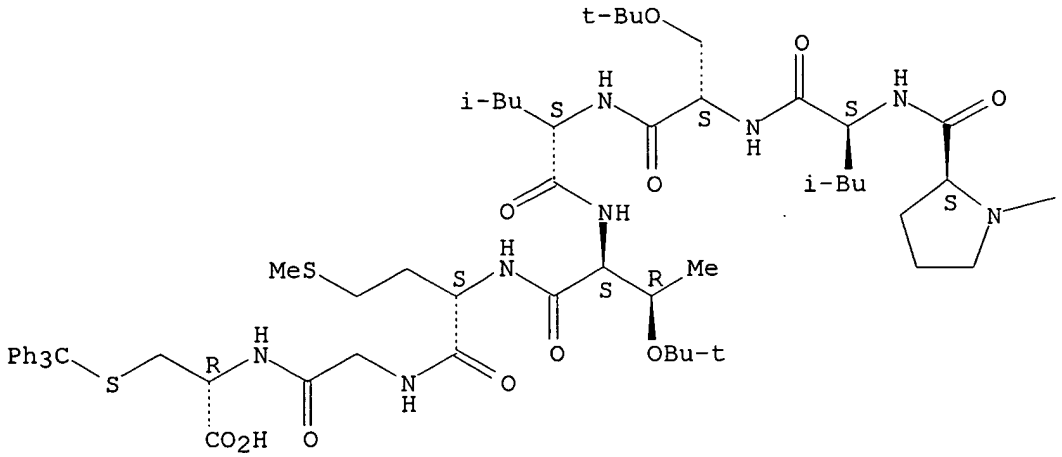
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(peptide-based near-IR mol. probe for protease sensing)

RN 795315-56-9 CAPLUS

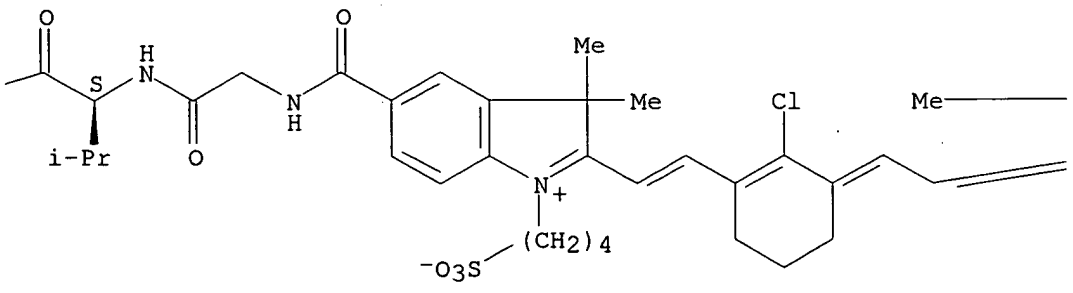
CN L-Cysteine, N-[[2-[2-[3-[[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]glycyl-L-valyl-L-prolyl-L-leucyl-O-(1,1-dimethylethyl)-L-seryl-L-leucyl-O-(1,1-dimethylethyl)-L-threonyl-L-methionylglycyl-S-(triphenylmethyl)-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



PAGE 1-B



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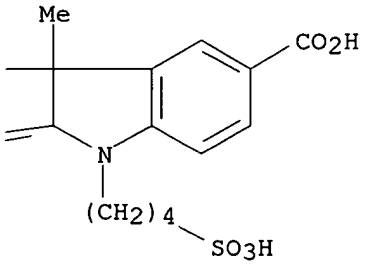
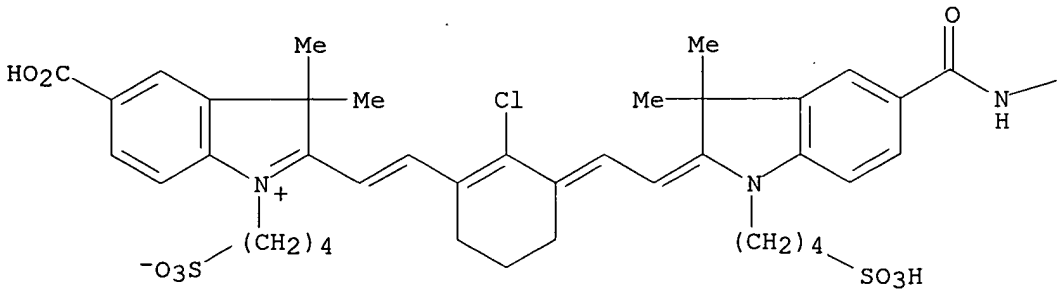


RN 795315-57-0 CAPLUS
CN INDEX NAME NOT YET ASSIGNED

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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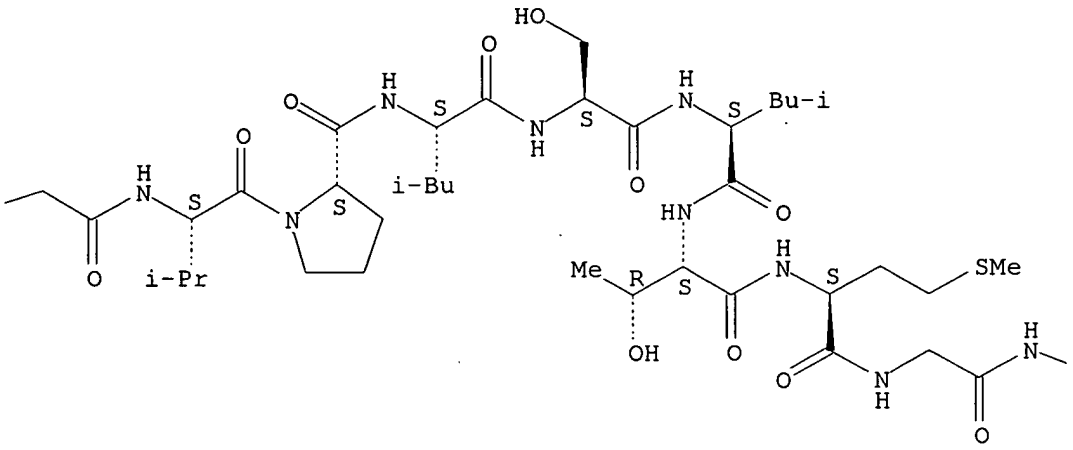

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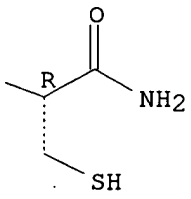


REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 2 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:679369 CAPLUS
DOCUMENT NUMBER: 139:304048
TITLE: High efficiency synthesis of a bioconjugatable near-infrared fluorochrome
AUTHOR(S): Pham, Wellington; Lai, Wen-Fu; Weissleder, Ralph; Tung, Ching-Hsuan
CORPORATE SOURCE: Center for Molecular Imaging Research, Massachusetts General Hospital, Harvard Medical School, Charlestown, MA, 02129, USA

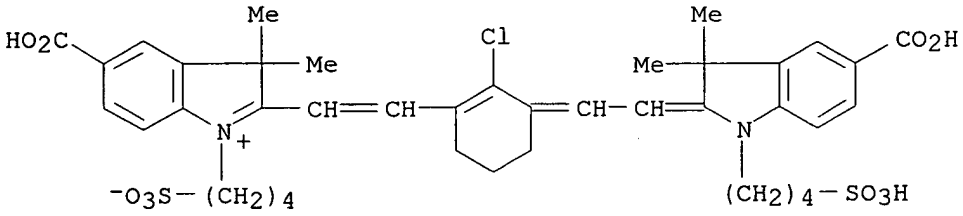
SOURCE: Bioconjugate Chemistry (2003), 14(5), 1048-1051
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Near-IR (NIR) fluorochromes have become important reporter mols. for many biomedical applications, including FACS sorting, confocal microscopy, and more recently in vivo imaging. While the structures of several stable 800 nm fluorochromes have been published, their synthesis is often complex and there are difficulties in rapidly purifying these compds. in large quantities. Here we report on the synthesis of NIR820, ex/em = 790/820, with excellent physicochem. properties. Importantly, NIR820 is conveniently synthesized in a three-step reaction and can be purified by flash column chromatog. rather than by HPLC. NIR820 is chemical stable and can be directly coupled to peptides during the solid-phase synthesis. In addition, NIR820 is also suitable for conjugation to proteins and other affinity mols. in aqueous buffer.

IT **612531-93-8P**
RL: ARU (Analytical role, unclassified); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent)
(high efficiency synthesis of **bioconjugatable** near-IR fluorochrome)

RN 612531-93-8 CAPLUS

CN 3H-Indolium, 5-carboxy-2-[2-[3-[[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

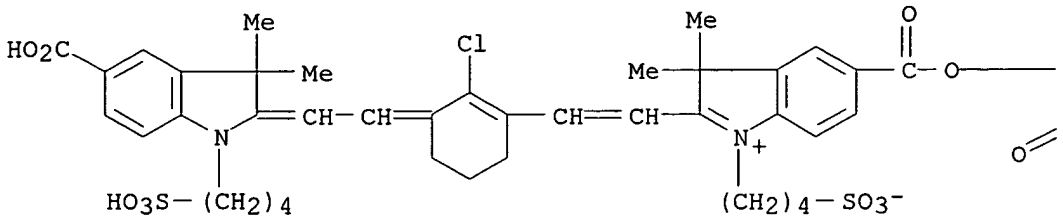


IT **612531-94-9DP**, reaction products with Tf protein
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(high efficiency synthesis of **bioconjugatable** near-IR fluorochrome)

RN 612531-94-9 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-carboxy-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-chloro-1-cyclohexen-1-yl]ethenyl]-5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



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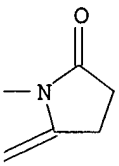


REFERENCE COUNT: 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 3 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2003:678390 CAPLUS
DOCUMENT NUMBER: 139:193970
TITLE: Folate targeted enhanced tumor and folate receptor positive tissue optical imaging technology
INVENTOR(S): Jallad, Karim N.; Kennedy, Michael D.; Low, Philip S.; Ben-Amotz, Dor
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 20 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.		DATE
US 2003162234	A1	20030828	US 2003-360001		20030206
US 2004136910	A1	20040715	US 2003-742291		20031219
PRIORITY APPLN. INFO.:			US 2002-355417P	P	20020207
			US 2003-360001	A2	20030206

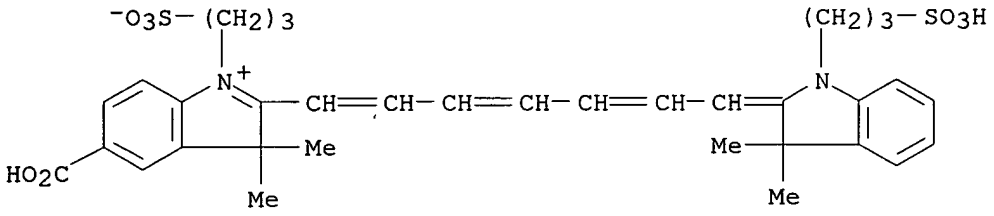
AB A method of and apparatus for differentiating tumors from healthy cells in tissue are disclosed. The method includes the steps of providing a marker-folate conjugate, placing the marker-folate conjugate in contact with the tissue and viewing the tissue. A folate-fluorescein conjugate was used to image M109 tumors in mice and arthritis in rat paws.

IT **583037-93-8D, conjugates** with folate
RL: ARG (Analytical reagent use); BSU (Biological study, unclassified); DGN (Diagnostic use); ANST (Analytical study); BIOL (Biological study); USES (Uses)

(folate-targeted enhanced tumor and folate receptor-pos. tissue optical imaging technol.)

RN 583037-93-8 CAPLUS

CN 3H-Indolium, 5-carboxy-2-[7-[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt (9CI) (CA INDEX NAME)



L69 ANSWER 4 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2001:247216 CAPLUS

DOCUMENT NUMBER: 134:263164

TITLE: Antibody dye conjugates for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries

INVENTOR(S): Schirner, Michael; Licha, Kai; Dinkelborg, Ludger

PATENT ASSIGNEE(S): Schering Aktiengesellschaft, Germany

SOURCE: PCT Int. Appl., 26 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001023005	A1	20010405	WO 2000-EP8121	20000819
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
DE 19947559	A1	20010419	DE 1999-19947559	19990924
CA 2385593	AA	20010405	CA 2000-2385593	20000819
BR 2000014192	A	20020521	BR 2000-14192	20000819
EP 1214099	A1	20020619	EP 2000-954640	20000819
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				
JP 2003510294	T2	20030318	JP 2001-526214	20000819
EE 200200152	A	20030415	EE 2002-152	20000819
NZ 517944	A	20040625	NZ 2000-517944	20000819
BG 106528	A	20021229	BG 2002-106528	20020319

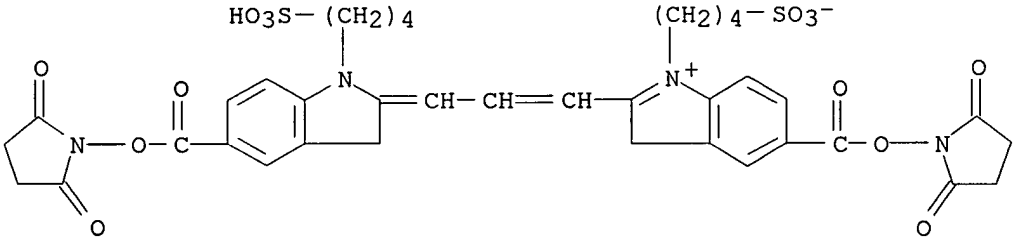
NO 2002001441	A	20020515	NO 2002-1441		20020322
ZA 2002003225	A	20030723	ZA 2002-3225		20020423
PRIORITY APPLN. INFO.:			DE 1999-19947559	A	19990924
			WO 2000-EP8121	W	20000819

AB The invention relates to antibody dye conjugates which are suited for binding to structures of newly formed vessels and to the their use for interoperatively detecting pathol. angiogenesis. Fluorescent dyes are defined that are coupled to antibodies. Thus bis(1,1'-di(4-sulfobutyl)indocarbocyanine-5-carboxylic acid N-hydroxysuccinimide ester) was synthesized and coupled with an antibody to EDB fibronectin. The conjugate was injected into F9-teratocarcinoma-carrying mice; fluorescence in the tumor-surrounding tissues was detected.

IT **331661-84-8DP**, antibody **conjugate**
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); THU (Therapeutic use); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antibody dye **conjugates** for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries)

RN 331661-84-8 CAPLUS

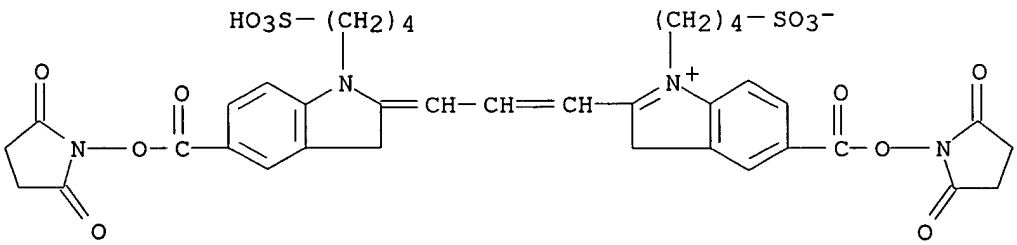
CN 3H-Indolium, 5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-2-[3-[5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



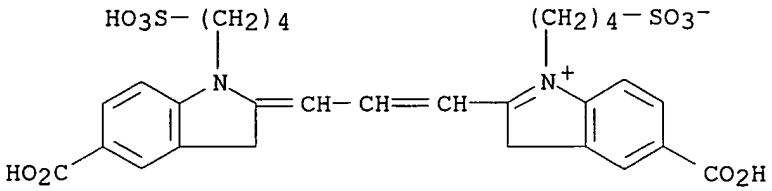
IT **331661-84-8P 331661-85-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(antibody dye **conjugates** for binding to target structures of angiogenesis in order to intraoperatively detect tumor peripheries)

RN 331661-84-8 CAPLUS

CN 3H-Indolium, 5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-2-[3-[5-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 331661-85-9 CAPLUS
CN 3H-Indolium, 5-carboxy-2-[3-[5-carboxy-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 5 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:38760 CAPLUS
DOCUMENT NUMBER: 134:202772
TITLE: Synthesis, characterization, and biological properties of cyanine-labeled somatostatin analogues as receptor-targeted fluorescent probes
AUTHOR(S): Licha, Kai; Hessenius, Carsten; Becker, Andreas; Henklein, Peter; Bauer, Michael; Wisniewski, Stefan; Wiedenmann, Bertram; Semmler, Wolfhard
CORPORATE SOURCE: Institut fuer Diagnostikforschung GmbH an der Freien Universitaet Berlin, Berlin, 14050, Germany
SOURCE: Bioconjugate Chemistry (2001), 12(1), 44-50
CODEN: BCCHES; ISSN: 1043-1802
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

AB We present the synthesis and characterization of the somatostatin receptor-specific peptide H2N-(D-Phe)-cyclo[Cys-Phe-(D-Trp)-Lys-Thr-Cys]-Thr-OH, which is labeled with a carboxylated indodicarbo- and an indotricarbocyanine dye at the N-terminal amino group. The preparation was performed by automated solid-phase synthesis, with subsequent attachment of the cyanine dye and cleavage of the entire conjugate from the resin. The compds. display high molar absorbance and fluorescence quantum yields typical for cyanine dyes and are thus suitable receptor-targeted contrast agents for mol. optical imaging. The ability of these agents to target the somatostatin receptor was demonstrated by flow cytometry in vitro, in which the indotricarbocyanine conjugate led to elevated cell-associated fluorescence on somatostatin receptor-expressing tumor cells. In contrast, the corresponding linearized derivative of the sequence H2N-(D-Phe)-Met-Phe-(D-Trp)-Lys-Thr-Met-Thr-OH produced only minimal cell fluorescence, hence confirming the specificity of the cyclic somatostatin analog. Intracellular localization could be visualized by near-IR (NIR) fluorescence microscopy. In conclusion, receptor-specific peptides are promising tools for designing site-directed optical contrast agents for use in mol. optical imaging.

IT **328395-93-3P 328395-94-4P**
RL: SPN (Synthetic preparation); PREP (Preparation)

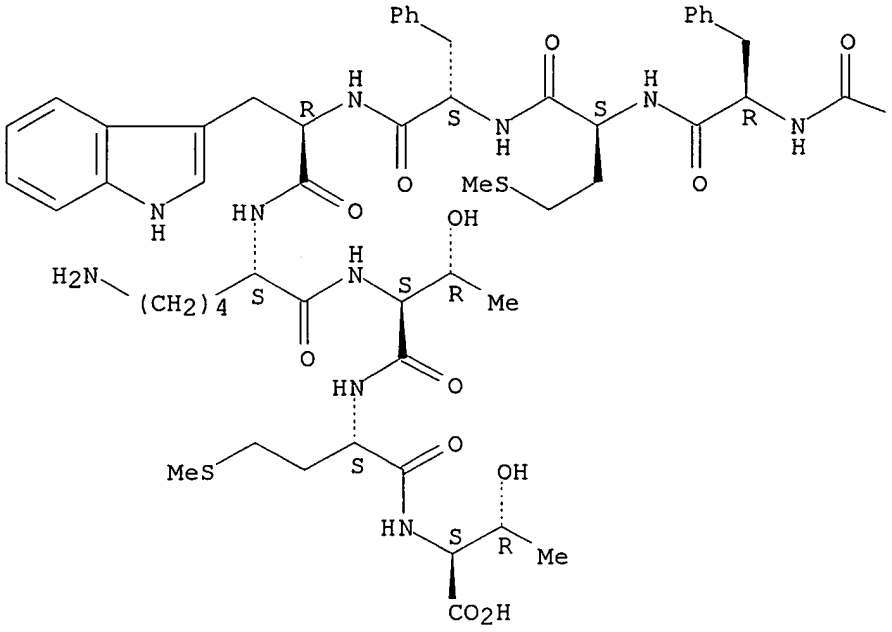
(control dye-peptide **conjugate**; synthesis, characterization, and biol. properties of cyanine-labeled somatostatin analogs as receptor-targeted fluorescent probes)

RN 328395-93-3 CAPLUS

CN L-Threonine, N-[[2-[5-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-D-phenylalanyl-L-methionyl-L-phenylalanyl-D-tryptophyl-L-lysyl-L-threonyl-L-methionyl-, inner salt (9CI) , (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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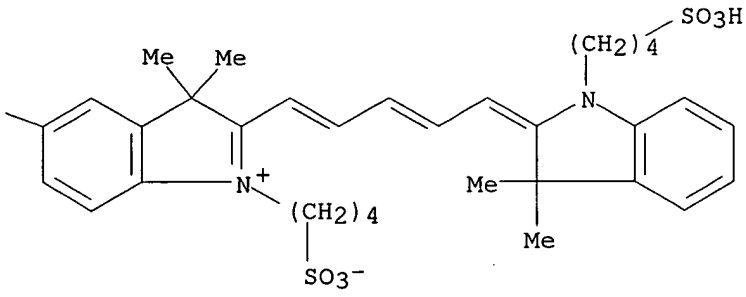


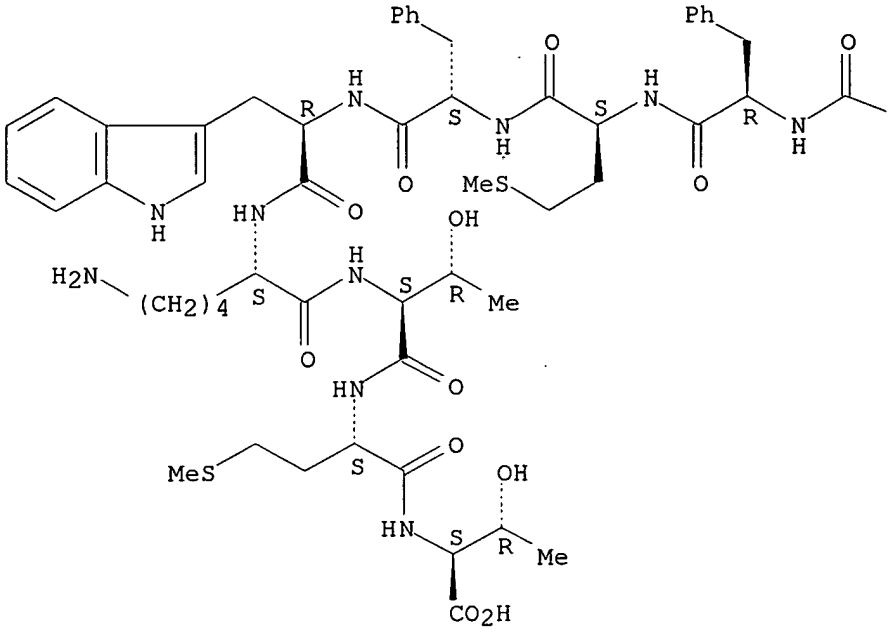
RN 328395-94-4 CAPLUS

CN L-Threonine, N-[[2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-

2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-D-phenylalanyl-L-methionyl-L-phenylalanyl-D-tryptophyl-L-lysyl-L-threonyl-L-methionyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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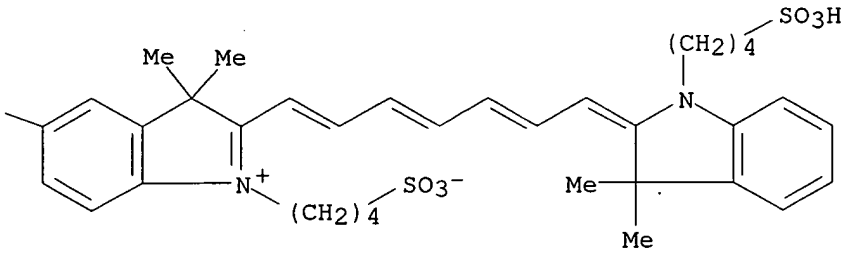

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 6 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2001:10685 CAPLUS
DOCUMENT NUMBER: 134:102214
TITLE: New fluorescent cyanine labels containing a sulfonamido linker arm
INVENTOR(S): Caputo, Giuseppe; Della, Ciana Leopoldo

PATENT ASSIGNEE(S): Innosense S.r.L., Italy; Visen Medical, Inc.
SOURCE: Eur. Pat. Appl., 94 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1065250	A1	20010103	EP 1999-112696	19990702
EP 1065250	B1	20041208		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
AT 284433	E	20041215	AT 1999-112696	19990702
EP 1491591	A1	20041229	EP 2004-23147	19990702
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
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CA 2312099	AA	20010102	CA 2000-2312099	20000622
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PRIORITY APPLN. INFO.: EP 1999-112696 A 19990702
OTHER SOURCE(S): MARPAT 134:102214
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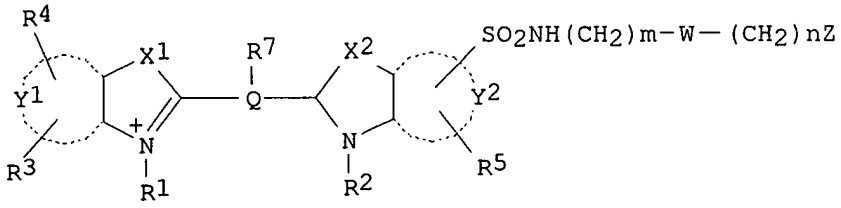


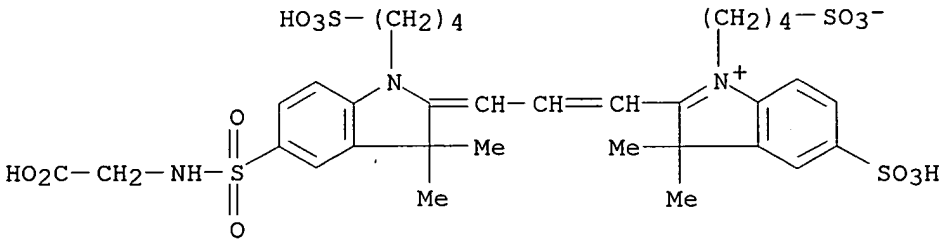
I

AB Water-soluble fluorescent cyanine dyes, capable of being excited by inexpensive light-emitting diodes or diode lasers and of conjugating with a wide variety of biomols., have the structure I [Q = conjugated connecting group; R1, R2 = H, C1-4 (sulfo)alkyl; R3-R5 = H, SO3H, C1-4 sulfoalkyl, SO2NH(CH2)mW(CH2)nZ; W = direct link, SO2NH, O, CO2, CONH; X1, X2 = O, S, CMe2, C:CH2; Y1, Y2 = benzo, naphtho; Z is or contains a functional group capable of bonding to biomols.; m, n = 0-12; m + n = 1-12] or its salt. Thus, K 2,3,3-trimethyl-3H-indole-5-sulfonate was converted with PCl5 and POCl3 to the 5-sulfonyl chloride, which was condensed with glycine tert-Bu ester, and the product was alkylated with 1,4-butane sultone to give 5-[[(carboxymethyl)amino]sulfonyl]-2,3,3-trimethyl-1-(4-sulfobutyl)-3H-indolium inner salt (II). 2,3,3-Trimethyl-5-sulfo-1-(4-sulfobutyl)-3H-indolium inner salt was treated first with PhNHCH:NPh and then with II to give a I [Q = CH:CHCH:, R1 = R2 = (CH2)4SO3H; R3 = 5-SO3H, R4 = R5 = H, W = direct link, X1 = X2 = CMe2, Y1 = Y2 = benzo, Z = CO2H, m = 0, n = 1].

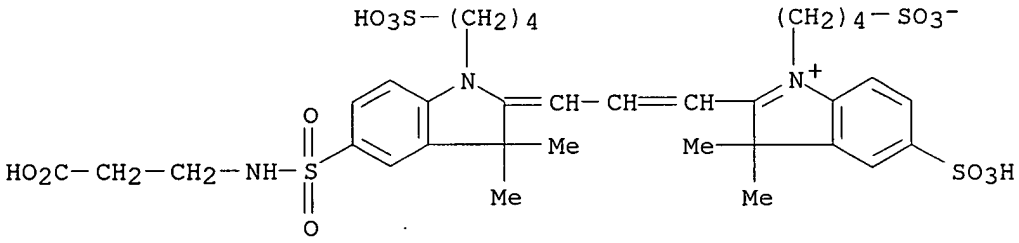
IT **316829-76-2P 316829-77-3P 316829-78-4P 316829-79-5P 316829-80-8P 316829-81-9P 316829-82-0P 316829-83-1P 316829-84-2P**

316829-85-3P 316829-86-4P 316829-87-5P
316829-88-6P 316829-89-7P 316829-90-0P
316829-91-1P 316829-92-2P 316829-93-3P
316829-94-4P 316829-95-5P 316829-96-6P
RL: ARG (Analytical reagent use); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); USES (Uses)
(preparation of fluorescent cyanine dye labels containing a sulfonamido **linker** arm)

RN 316829-76-2 CAPLUS
CN 3H-Indolium, 2-[3-[5-[[(carboxymethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 316829-77-3 CAPLUS
CN 3H-Indolium, 2-[3-[5-[[(2-carboxyethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



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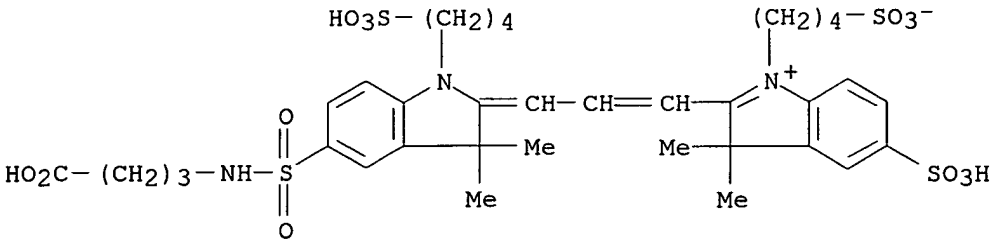
CN 3H-Indolium, 2-[3-[5-[[(3-carboxypropyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 316829-79-5 CAPLUS
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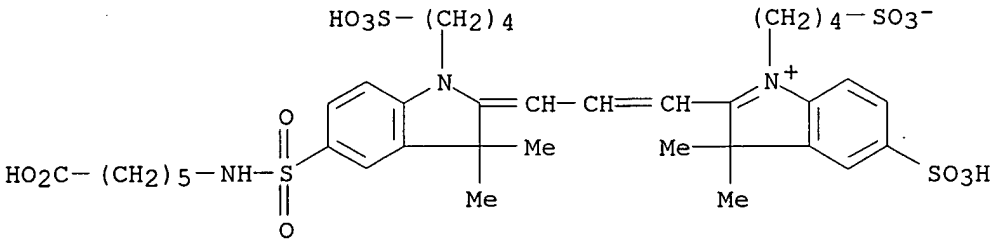
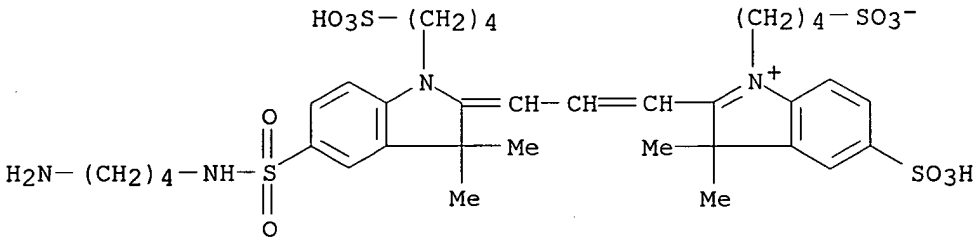


RN 316829-80-8 CAPLUS
CN 3H-Indolium, 2-[3-[5-[[(4-aminobutyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



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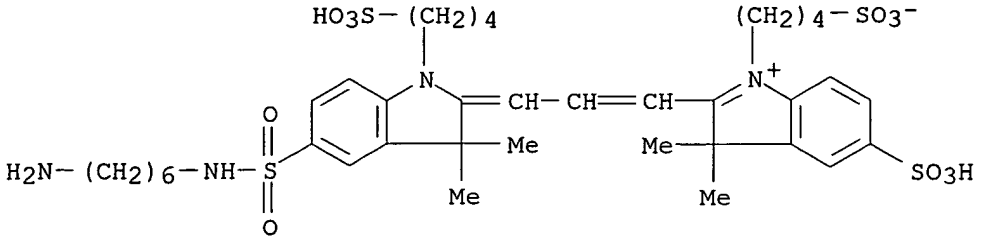
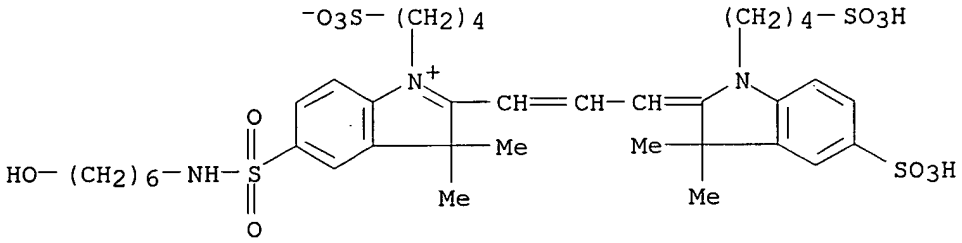


RN 316829-82-0 CAPLUS
CN 3H-Indolium, 2-[3-[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1-propenyl]-5-[[(6-hydroxyhexyl)amino]sulfonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



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CN 3H-Indolium, 2-[5-[5-[[(carboxymethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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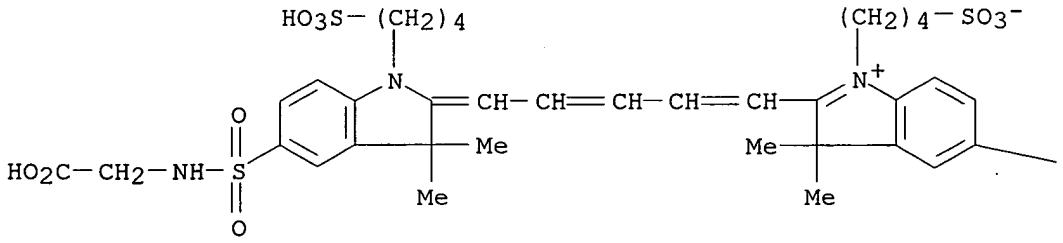

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$-SO_3H$

RN 316829-84-2 CAPLUS
CN 3H-Indolium, 2-[5-[5-[[(2-carboxyethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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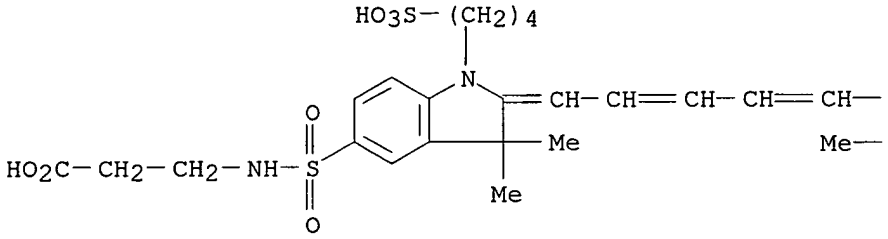

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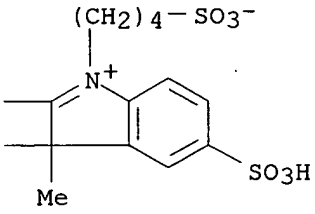

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CN 3H-Indolium, 2-[5-[5-[[(3-carboxypropyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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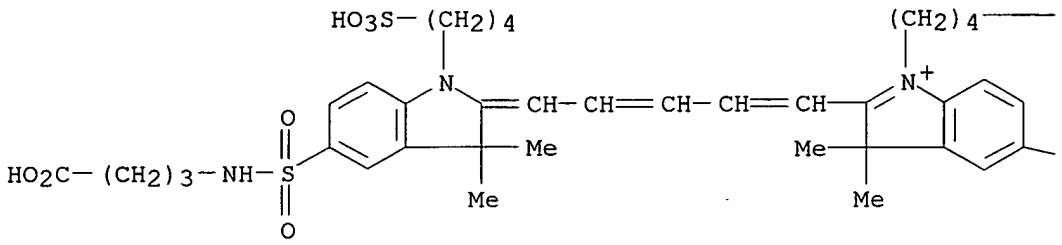

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— SO_3^-

SO_3H

RN 316829-86-4 CAPLUS
CN 3H-Indolium, 2-[5-[5-[[(5-carboxypentyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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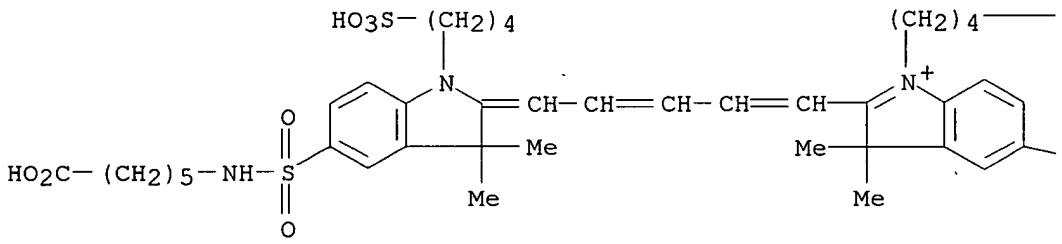

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— SO_3^-

SO_3H

RN 316829-87-5 CAPLUS
CN 3H-Indolium, 2-[5-[5-[[(4-aminobutyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-

dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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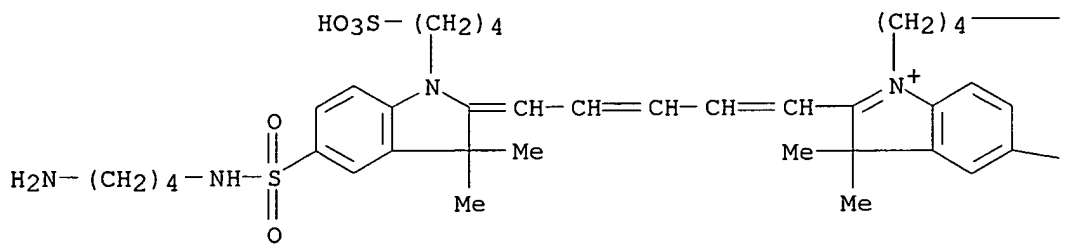

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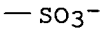

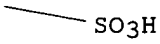

RN 316829-88-6 CAPLUS
CN 3H-Indolium, 2-[5-[5-[[(6-aminohexyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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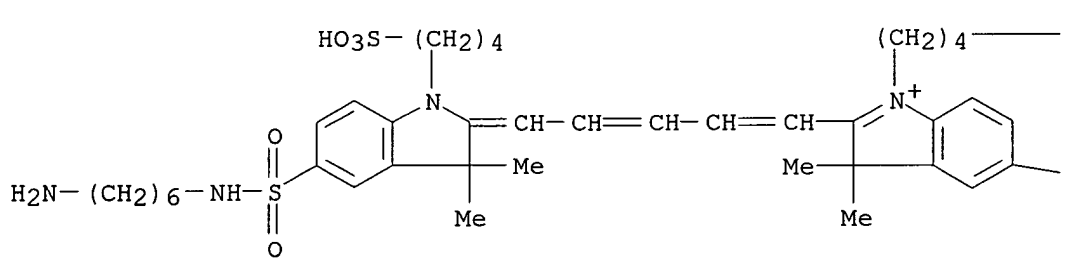

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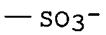

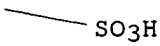

RN 316829-89-7 CAPLUS

CN 3H-Indolium, 2-[5-[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3-pentadienyl]-5-[[(6-hydroxyhexyl)amino]sulfonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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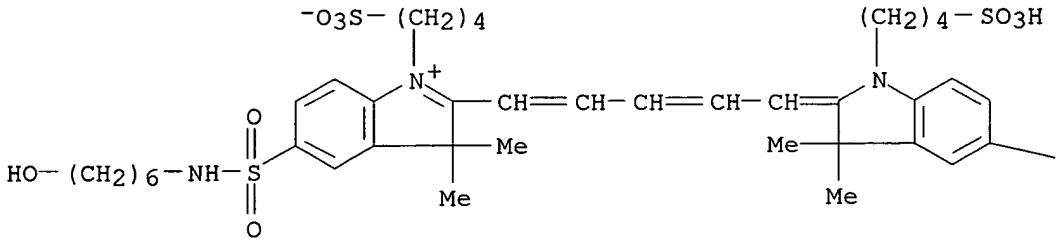

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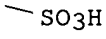

RN 316829-90-0 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-[[(carboxymethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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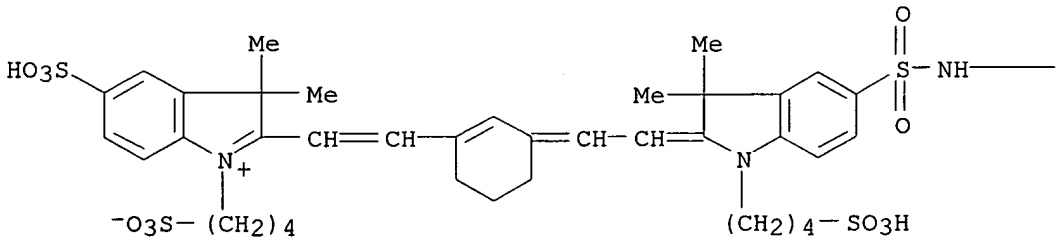

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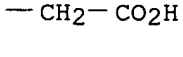

RN 316829-91-1 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-[[(2-carboxyethyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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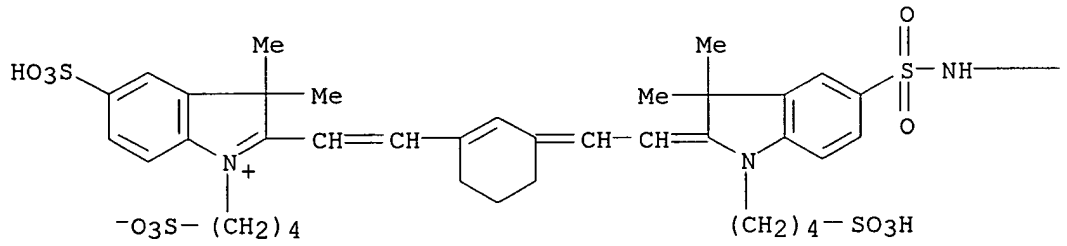

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RN 316829-92-2 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[5-[[(3-carboxypropyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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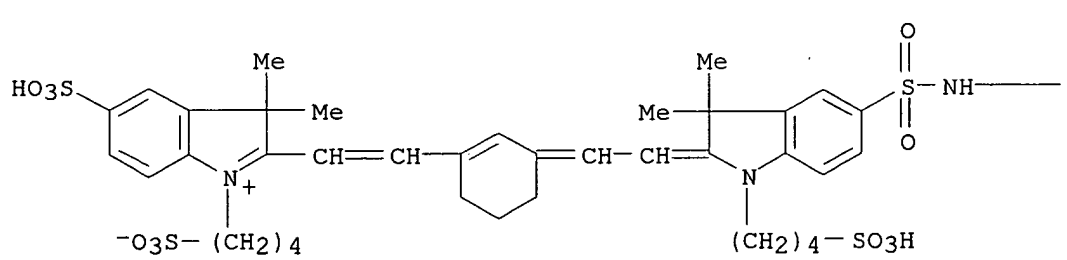

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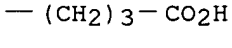

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CN 3H-Indolium, 2-[2-[3-[[5-[[(5-carboxypentyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-

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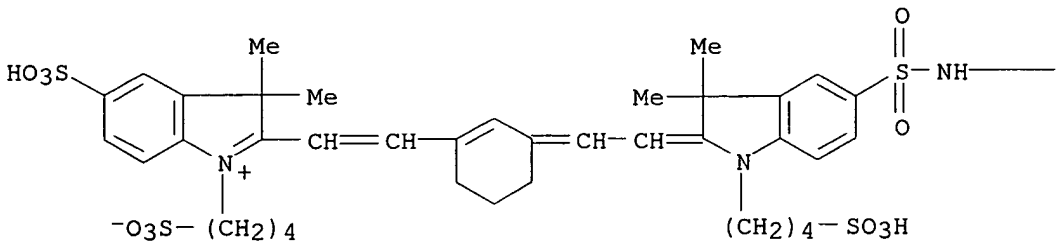

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— $(CH_2)_5$ — CO_2H

RN 316829-94-4 CAPLUS
CN 3H-Indolium, 2-[2-[3-[[5-[[(4-aminobutyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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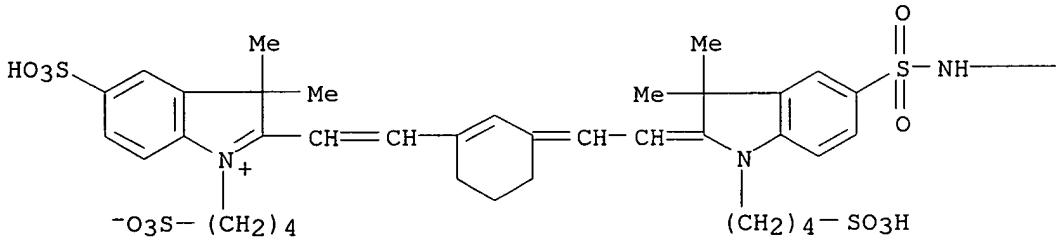

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— $(CH_2)_4$ — NH_2

RN 316829-95-5 CAPLUS
CN 3H-Indolium, 2-[2-[3-[[5-[[(6-aminohexyl)amino]sulfonyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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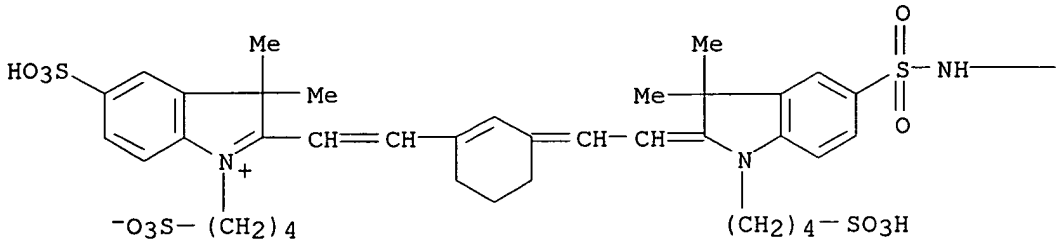

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— $(CH_2)_6$ — NH_2

RN 316829-96-6 CAPLUS
CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-5-[[(6-hydroxyhexyl)amino]sulfonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

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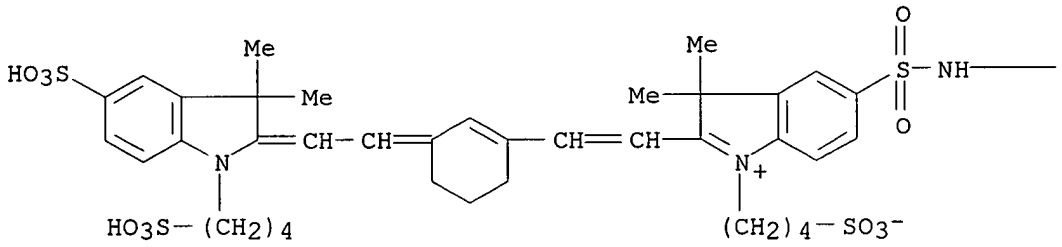

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— $(CH_2)_6$ — OH

REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 7 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:516171 CAPLUS
DOCUMENT NUMBER: 134:127990
TITLE: Novel receptor-targeted contrast agents for optical

imaging of tumors

AUTHOR(S): Becker, Andreas; Hessenius, Carsten; Bhargava, Sarah; Ebert, Bernd; Sukowski, Uwe; Rinneberg, Herbert H.; Wiedenmann, Bertram; Semmler, Wolfhard; Licha, Kai

CORPORATE SOURCE: Institut fuer Diagnostikforschung, Freie Univ. Berlin, Berlin, Germany

SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (2000), 3924(Molecular Imaging: Reporters, Dyes, Markers, and Instrumentation), 41-47
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DOCUMENT TYPE: Journal

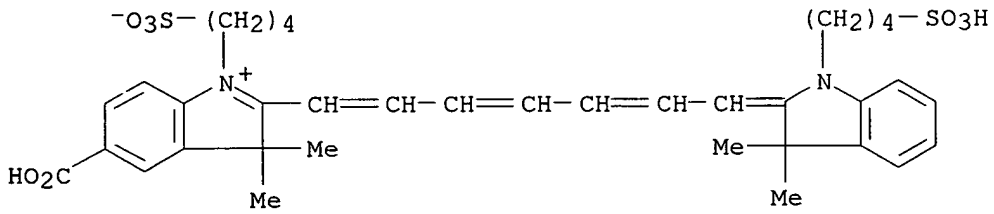
LANGUAGE: English

AB Many gastroenteropancreatic tumors express receptors for somatostatin (SST) and/or vasoactive intestinal peptide (VIP). These receptors can be used as mol. targets for the delivery of contrast agents for tumor diagnostics. We have synthesized conjugates consisting of a cyanine dye and an SST analog or VIP for use as contrast agents in optical imaging. Receptor binding and internalization of these compds. were examined with optical methods in transfected RIN38 tumor cells expressing the SST2 receptor or a GFP- labeled VIP (VPAC1) receptor. Furthermore, biodistribution of the conjugates was examined by laser-induced fluorescence imaging in nude mice bearing SST2 or VPAC1 receptor- expressing tumors. After incubation of RIN38 SSTR2 cells in the presence of 100 nM indotricarbocyanine-SST analog, cell-associated fluorescence increased, whereas no increase was observed when receptor-medicated endocytosis was inhibited. Indodicarbocyanine-VIP accumulated in RIN38 VPAC1 cells and co-localization with the GFP-labeled VPAC1 receptor was observed After injection of indotricarbocyanine-SST analog into tumor-bearing nude mice, SST2 receptor-pos. tumors could be visualized for a time period from 10 min to at least 48 h. After application of indodicarbocyanine-VIP, a fluorescence signal in VIP1 receptor-expressing tumors was only detected during the first hour. We conclude that cyanine dye-labeled VIP and SST analog are novel, targeted contrast agents for the optical imaging of tumors expressing the relevant receptor.

IT **208243-29-2D, conjugated** with somatostatin peptide
321909-06-2D, conjugated with VIP peptide
RL: ARG (Analytical reagent use); BPR (Biological process); BSU (Biological study, unclassified); PRP (Properties); ANST (Analytical study); BIOL (Biological study); PROC (Process); USES (Uses)
(novel receptor-targeted contrast agents for optical imaging of tumors)

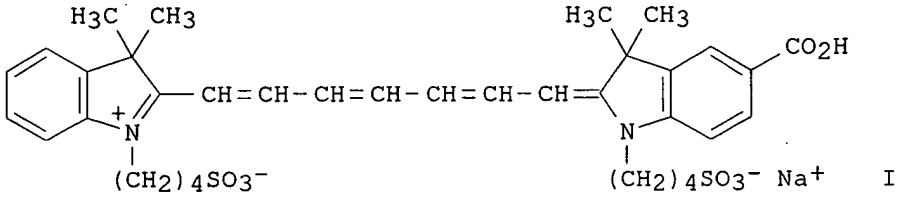
RN 208243-29-2 CAPLUS

CN 3H-Indolium, 5-carboxy-2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 321909-06-2 CAPLUS
REFERENCE COUNT: 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 8 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 2000:218041 CAPLUS
DOCUMENT NUMBER: 133:30929
TITLE: Highly parallel nano-synthesis of cleavable peptide-dye conjugates on cellulose membranes
AUTHOR(S): Licha, Kai; Bhargava, Sarah; Rheinlander, Christiane; Becker, Andreas; Schneider-Mergener, Jens; Volkmer-Engert, Rudolf
CORPORATE SOURCE: Institut fur Diagnostikforschung an der Freien Universitat Berlin, Berlin, D-14050, Germany
SOURCE: Tetrahedron Letters (2000), 41(11), 1711-1715
CODEN: TELEAY; ISSN: 0040-4039
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



I

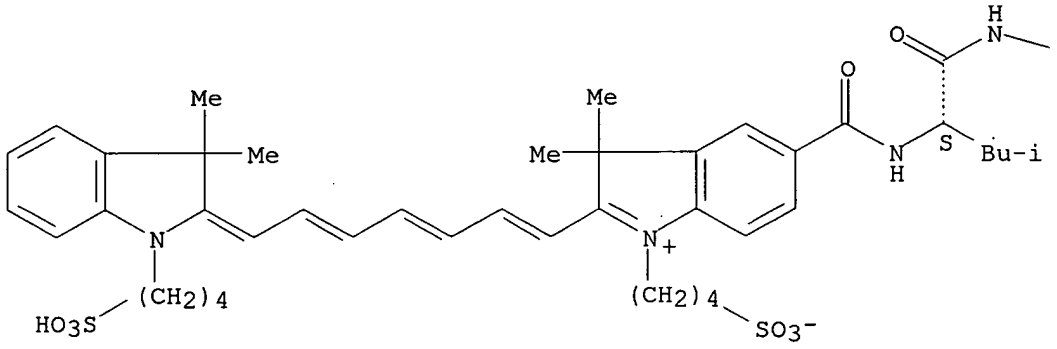
AB Treatment of mercapto-functionalized cellulose membranes with preformed Fmoc-amino acid bromopropyl esters yielded membrane-bound amino acids connected via a stable thioether and a cleavable ester bond. This synthesis strategy allowed the highly parallel preparation of peptides that can be solubilized from the solid support. The authors synthesized the novel indotricarbocyanine dye I, and then, synthesized peptide conjugates of I, which are potentially useful as fluorescent contrast agents targeted to tumor-specific receptors.

IT **273383-46-3P 273383-48-5P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis of cleavable peptide-dye **conjugates** on cellulose membranes)

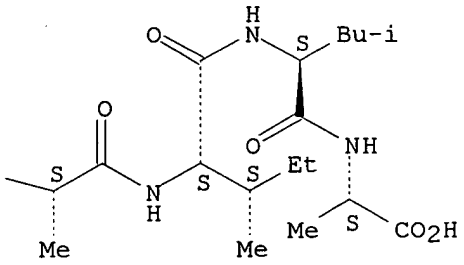
RN 273383-46-3 CAPLUS
CN L-Alanine, N-[[2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-L-leucyl-L-alanyl-L-isoleucyl-L-leucyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



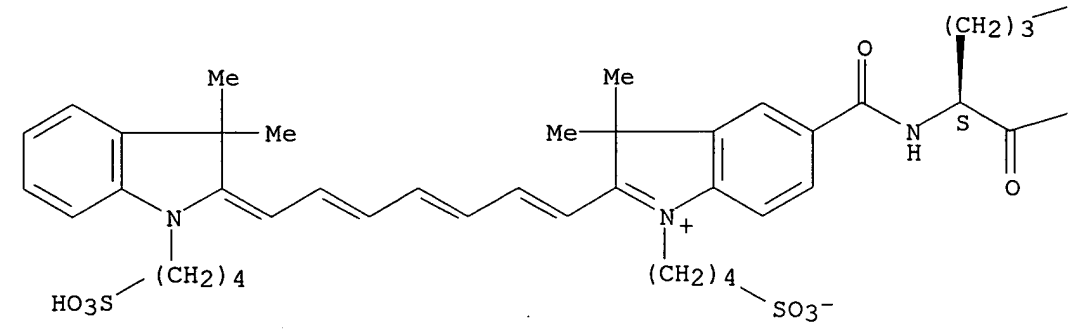
PAGE 1-B



RN 273383-48-5 CAPLUS
CN L-Asparagine, N2-[[2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-3H-indolium-5-yl]carbonyl]-L-arginyl-L-lysyl-L-glutaminyl-L-methionyl-L-alanyl-L-valyl-L-lysyl-L-lysyl-L-tyrosyl-L-leucyl-, inner salt (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry unknown.

PAGE 1-A



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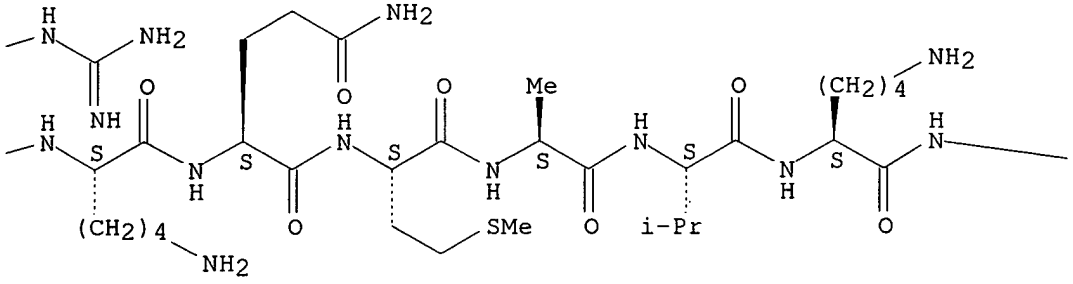
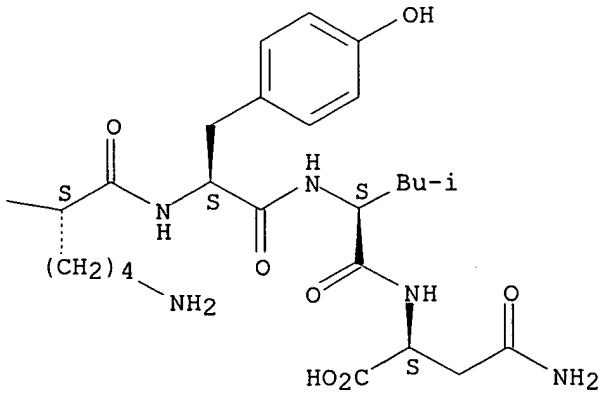


PAGE 1-C



Searcher : Shears 571-272-2528

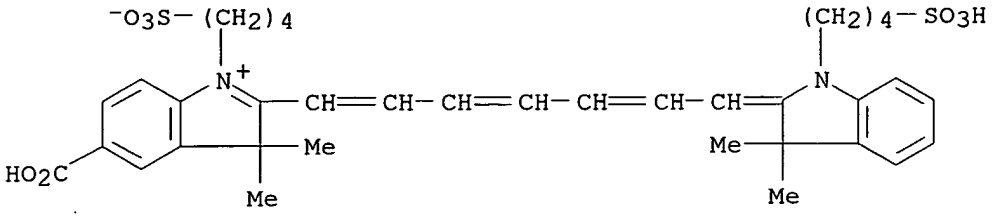
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 9 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1999:527837 CAPLUS
DOCUMENT NUMBER: 132:134143
TITLE: New contrast agents for optical imaging: acid-cleavable conjugates of cyanine dyes with biomolecules
AUTHOR(S): Licha, Kai; Becker, Andreas; Kratz, Frank; Semmler, Wolfhard
CORPORATE SOURCE: Institut fuer Diagnostikforschung, Freien Univ. Berlin, Berlin, Germany
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1999), 3600(Biomedical Imaging: Reporters, Dyes, and Instrumentation), 29-35
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The investigation of cyanine dyes as contrast agents in optical tumor imaging has been a focus of our recent work. We have shown that i.v. injected hydrophilic indotricarbocyanine derivs. enable tumor detection by fluorescence imaging and by frequency-domain absorption spectroscopy. Our current objective is to extend this approach by conjugating these dyes with specific biomols. in order to enhance targetability and to introduce acid-cleavable links that enable dye release in acidic cell compartments. Accordingly, we have synthesized cyanine dyes which contain different acid-cleavable hydrazone links and which were coupled to peptides, proteins and antibodies. We have studied the release of the dyes under various pH conditions. Our results show that dye release from transferrin increased under acidic conditions, while at neutral pH the stability was higher. Addnl., we observed pH-dependent fluorescence enhancement during cleavage. Cellular fluorescence microscopy expts. indicated that intracellular trapping is possible. In conclusion, cyanine dyes bound to biomols. by acid- cleavable bonds could act as promising optical contrast agents. Further work will include optimization of release rates by chemical modification and in vivo imaging studies.

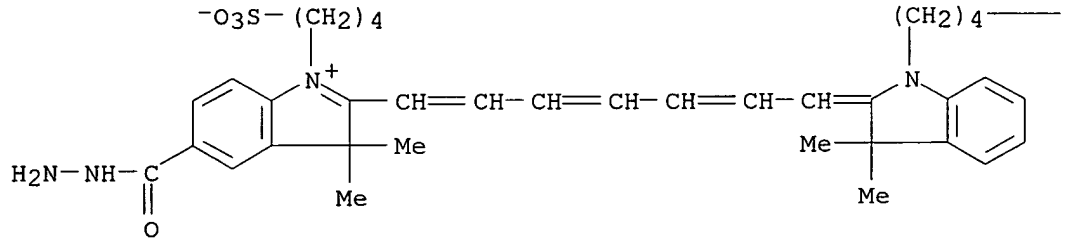
IT **208243-29-2P 256494-95-8P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(new contrast agents for optical imaging: acid-cleavable **conjugates** of cyanine dyes with biomols.)

RN 208243-29-2 CAPLUS
CN 3H-Indolium, 5-carboxy-2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



RN 256494-95-8 CAPLUS
CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-(hydrazinocarbonyl)-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A

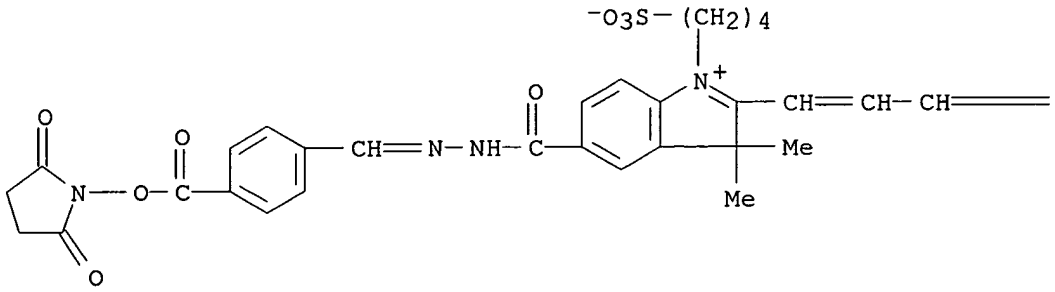


PAGE 1-B

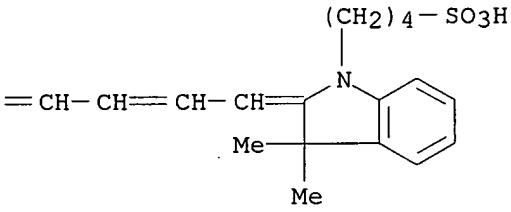
— SO_3H

IT **256494-96-9DP**, transferrin **conjugates**
256494-97-0DP, transferrin **conjugates**
RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(new contrast agents for optical imaging: acid-cleavable **conjugates** of cyanine dyes with biomols.)
RN 256494-96-9 CAPLUS
CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-[[[[4-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]methylene]hydrazino]carbonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A

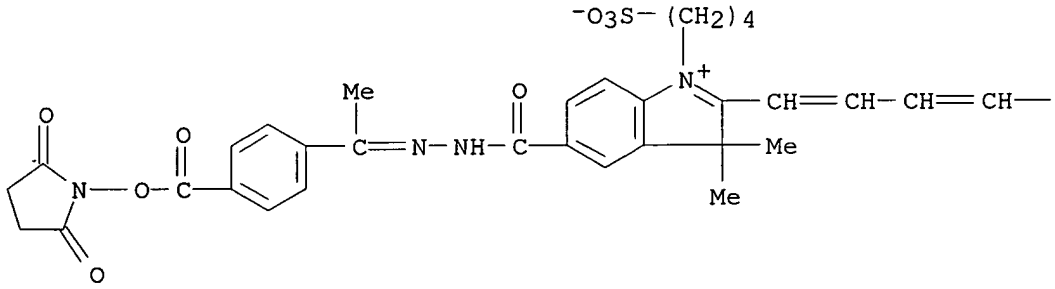


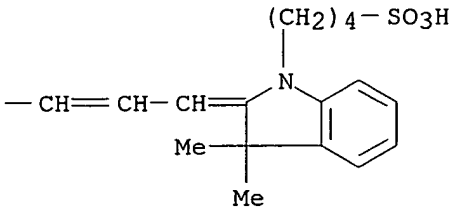
PAGE 1-B



RN 256494-97-0 CAPLUS
CN 3H-Indolium, 2-[7-[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-5-[[[1-[4-[[(2,5-dioxo-1-pyrrolidinyl)oxy]carbonyl]phenyl]ethylidene]hydrazino]carbonyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A





REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 10 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:341978 CAPLUS
DOCUMENT NUMBER: 129:104816
TITLE: Near-infrared heavy-atom-modified fluorescent dyes for base-calling in DNA-sequencing applications using temporal discrimination
AUTHOR(S): Flanagan, James H., Jr.; Owens, Clyde V.; Romero, Sarah E.; Waddell, Emanuel; Kahn, Shaheer H.; Hammer, Robert P.; Soper, Steven A.
CORPORATE SOURCE: Department of Chemistry, Louisiana State University, Baton Rouge, LA, 70803-1804, USA
SOURCE: Analytical Chemistry (1998), 70(13), 2676-2684
CODEN: ANCHAM; ISSN: 0003-2700
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

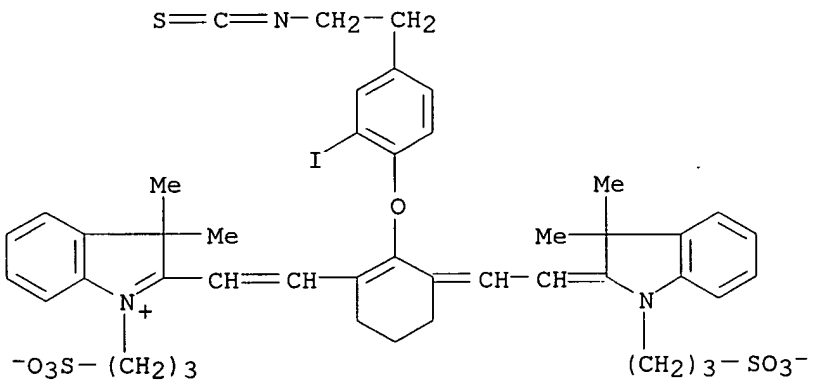
AB A series of near-IR fluorescent dyes were prepared which contained an intramol. heavy atom for altering the fluorescence lifetimes to produce a set of probes appropriate for base-calling in a single-lane DNA sequencing format. The heavy-atom modification consisted of an intramol. halogen situated on a remote section of the chromophore in order to minimize the perturbation on the lifetimes and fluorescence quantum yields. In addition, the dye series possessed an isothiocyanate functional group to allow facile attachment to sequencing primers. The unconjugated dyes showed similar absorption and emission maxima (λabs = 765-768 nm; λem = 794-798 nm) as well as fluorescence quantum yields that were invariant, within exptl. error, with the heavy atom. However, the lifetimes of these dyes were found to vary with the identity of the halogen substitution (I, τf = 947 ps; F, τf = 843 ps, measured in methanol), with an average variation within the dye series of 35 ps. The spectroscopic properties of the free dyes and the dyes conjugated to sequencing primers on the 5'-end of the oligonucleotide were determined in a DNA-sequencing matrix (denaturing gels containing formamide). The results indicated slight differences in the fluorescence properties of the free dyes compared to those of the dye/primer conjugates in this particular matrix. Inspection of the ground-state absorption spectra showed significant aggregation for the free dyes in this solution, but the conjugated dyes exhibited no sign of aggregation due to the highly anionic nature of the oligonucleotide. The fluorescence lifetimes of the dye/primer conjugates demonstrated lifetimes which ranged from 735 to 889 ps, with an average variation of 51 ps, an adequate difference to allow facile

discrimination of these dyes in DNA-sequencing conditions. In addition, the free solution electrophoretic mobilities of the native heavy-atom-modified dyes were found to be very similar. When the dye/primer conjugates were electrophoresed in a cross-linked polyacrylamide gel electrophoresis capillary column, they comigrated, indicating that, in single-lane sequencing applications, when utilizing these dyes, no postrun corrections would be required to correct for dye-dependent mobility shifts.

IT **209911-58-0DP**, oligodeoxyribonucleotide **conjugates**
209911-61-5DP, oligodeoxyribonucleotide **conjugates**
209911-65-9DP, oligodeoxyribonucleotide **conjugates**
209911-69-3DP, oligodeoxyribonucleotide **conjugates**
RL: ARG (Analytical reagent use); BUU (Biological use, unclassified); PRP (Properties); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)
(near-IR heavy-atom-modified fluorescent dyes for base-calling in DNA-sequencing applications using temporal discrimination)

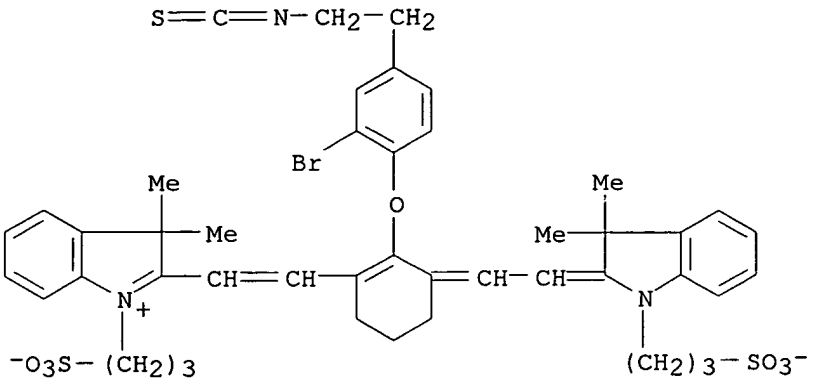
RN 209911-58-0 CAPLUS

CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[2-iodo-4-(2-isothiocyanatoethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)

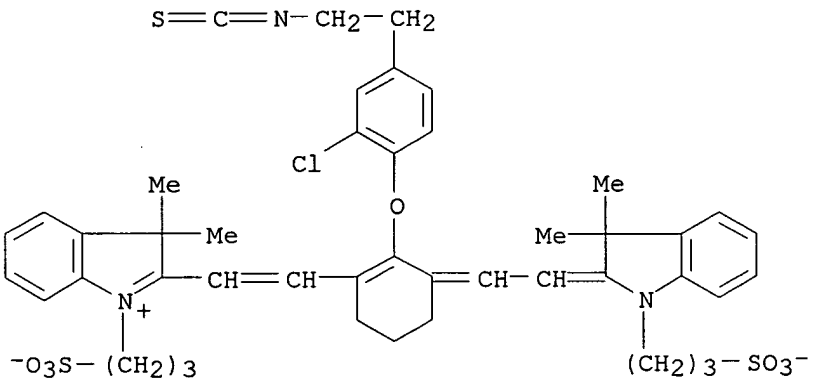


RN 209911-61-5 CAPLUS

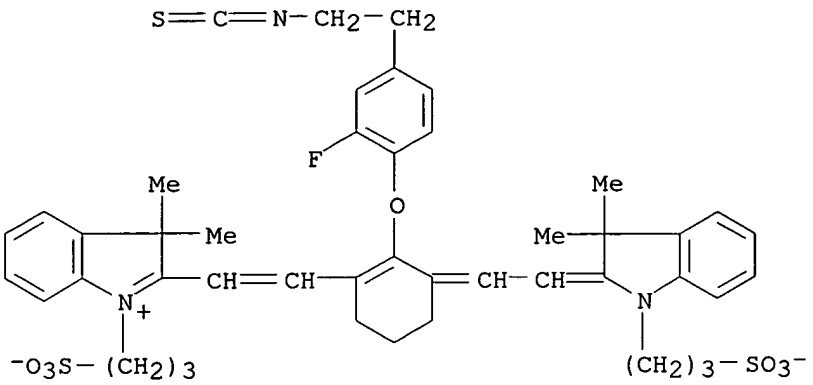
CN 3H-Indolium, 2-[2-[2-[2-bromo-4-(2-isothiocyanatoethyl)phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)



RN 209911-65-9 CAPLUS
CN 3H-Indolium, 2-[2-[2-[2-chloro-4-(2-isothiocyanatoethyl)phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)



RN 209911-69-3 CAPLUS
CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(3-sulfopropyl)-2H-indol-2-ylidene]ethylidene]-2-[2-fluoro-4-(2-isothiocyanatoethyl)phenoxy]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(3-sulfopropyl)-, inner salt, ion(1-) (9CI) (CA INDEX NAME)

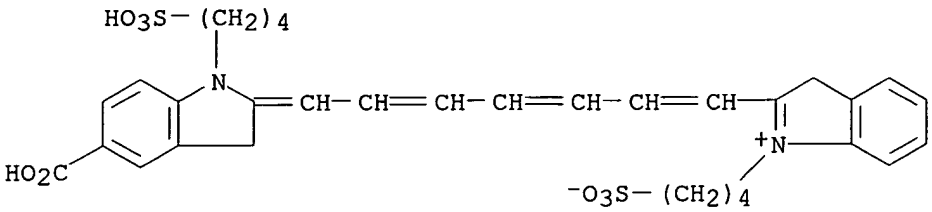


REFERENCE COUNT: 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 11 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1998:93134 CAPLUS
DOCUMENT NUMBER: 128:227990
TITLE: Tumor detection with cyanine dye-poly(ethylene glycol) conjugates as contrast agents for near-infrared imaging
AUTHOR(S): Riefke, Bjorn; Licha, Kai; Nolte, Dirk; Ebert, Bernd; Rinneberg, Herbert; Semmler, Wolfhard
CORPORATE SOURCE: Institut fur Diagnostikforschung GmbH an der Freien Universitat Berlin, Berlin, 14050, Germany
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1998), 3196(Optical and Imaging Techniques for Biomonitoring III), 103-110
CODEN: PSISDG; ISSN: 0277-786X
PUBLISHER: SPIE-The International Society for Optical Engineering
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The influence of the mol. weight of cyanine dye-poly(ethylene glycol) (PEG) conjugates on their pharmacokinetic behavior and on the contrast between malignant and normal tissue in fluorescence images was studied. PEG conjugates with a mol. weight ranging from 1800 to 40000 g mol-1 were investigated in a rat model. A tunable, pulsed, solid-state laser system and an intensified CCD camera served to record fluorescence images of different tumor-bearing mice and rats. The time window of increased contrast between tumor and normal tissue in fluorescence images can be adjusted by the mol. weight of PEG residues. Furthermore, we were able to demonstrate the visualization of s.c. blood vessels.

IT **204184-06-5D**, PEG **conjugates**
RL: BPR (Biological process); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(tumor detection with cyanine dye-poly(ethylene glycol) **conjugates** as contrast agents for near-IR imaging)
RN 204184-06-5 CAPLUS
CN 3H-Indolium, 2-[7-[5-carboxy-1,3-dihydro-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L69 ANSWER 12 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1997:34059 CAPLUS
DOCUMENT NUMBER: 126:57117
TITLE: Methods for the production of platinum-based linkers between labels and bio-organic molecules, for labeling bio-organic molecules, for detecting biological substances of interest and diagnostic test kits
INVENTOR(S): Houthoff, Hendrik Jan; Reedijk, Jan; Jelsma, Tinka; Van Es, Remco Maria; Van Den Berg, Franciscus Michiel; Lempers, Edwin Leo Mario; Bloemink, Marieke Johanna
PATENT ASSIGNEE(S): Kreatech Biotechnology B.V., Neth.
SOURCE: PCT Int. Appl., 36 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9635696	A1	19961114	WO 1996-NL198	19960508
W: AL, AM, AT, AU, AZ, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN				
CA 2218815	AA	19961114	CA 1996-2218815	19960508
AU 9657040	A1	19961129	AU 1996-57040	19960508
AU 724320	B2	20000914		
JP 11505533	T2	19990521	JP 1996-533965	19960508
NZ 307633	A	20000128	NZ 1996-307633	19960508
EP 1019420	A1	20000719	EP 1996-915218	19960508
EP 1019420	B1	20030806		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
AT 246696	E	20030815	AT 1996-915218	19960508
PT 1019420	T	20031231	PT 1996-915218	19960508
ES 2205030	T3	20040501	ES 1996-915218	19960508

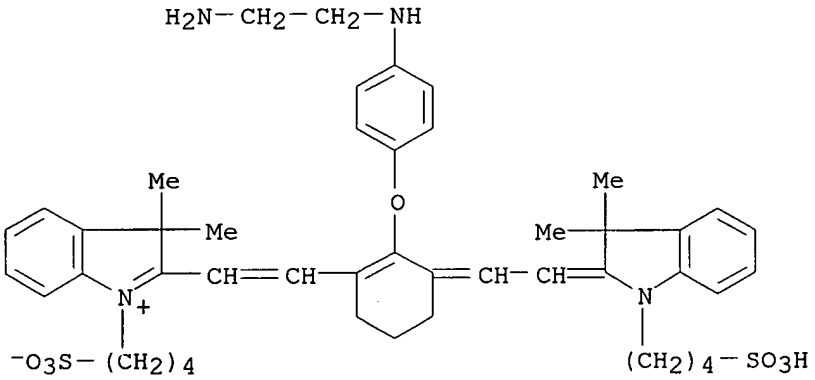
PRIORITY APPLN. INFO.: EP 1995-201197 A 19950509
WO 1996-NL198 W 19960508
OTHER SOURCE(S): CASREACT 126:57117; MARPAT 126:57117
AB The present invention provides improved methods of producing platinum

compds., which are very suitable for producing labeled substances, which can be used to detect specific mols. of interest. The platinum coordination compds. have two reactive groups of which one is replaced by a label and the other one can be replaced by a substance to be labeled. Production of labeled substances is very much improved by selection of the right starting materials and producing the right intermediates. The efficiency of labeling is very much improved, thereby enabling the production of labeling kits which are also a part of the present invention. The methods can be used for the detection of, e.g., various microorganisms and gene translocations/abnormalities.

IT **184957-40-2DP**, complexes with platinum ethylenediamine
RL: ARG (Analytical reagent use); RCT (Reactant); SPN (Synthetic preparation); ANST (Analytical study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)
(platinum-based **linkers** preparation for labeling bioorg. mols. for detection and diagnosis)

RN 184957-40-2 CAPLUS

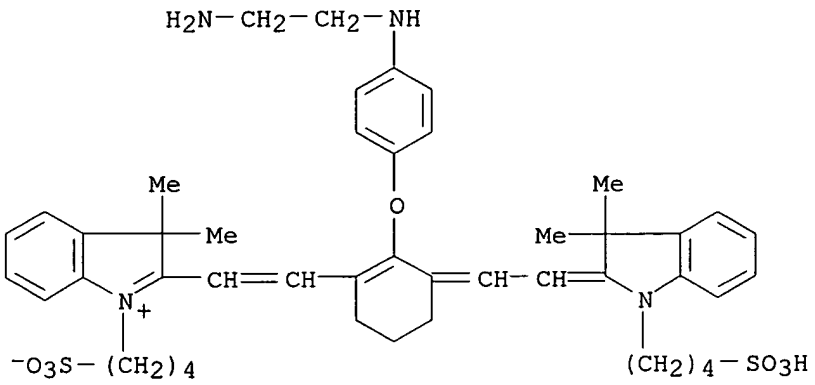
CN 3H-Indolium, 2-[2-[2-[4-[(2-aminoethyl)amino]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



IT **184957-40-2**
RL: RCT (Reactant); RACT (Reactant or reagent)
(platinum-based **linkers** preparation for labeling bioorg. mols. for detection and diagnosis)

RN 184957-40-2 CAPLUS

CN 3H-Indolium, 2-[2-[2-[4-[(2-aminoethyl)amino]phenoxy]-3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-1-cyclohexen-1-yl]ethenyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

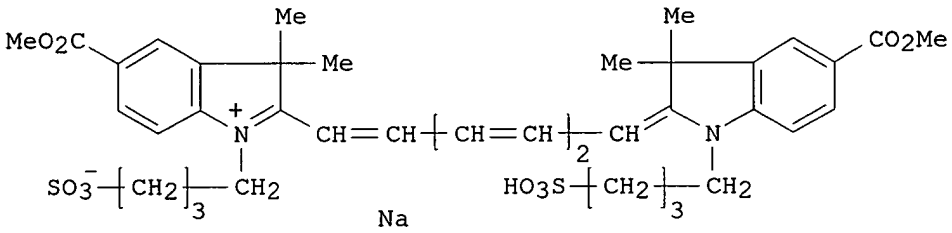


L69 ANSWER 13 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1996:437966 CAPLUS
DOCUMENT NUMBER: 125:81266
TITLE: Dye-biomolecule conjugates as contrast agents for in-vivo near-IR diagnostic methods
INVENTOR(S): Licha, Kai; Riefke, Bjoern; Semmler, Wolfhard; Speck, Ulrich; Hilger, Christoph-Stephan
PATENT ASSIGNEE(S): Institut fuer Diagnostikforschung Gmbh an der Freien Universitaet Berlin, Germany
SOURCE: Ger. Offen., 18 pp.
CODEN: GWXXBX
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 4445065	A1	19960613	DE 1994-4445065	19941207
CA 2205906	AA	19960613	CA 1995-2205906	19951010
WO 9617628	A1	19960613	WO 1995-DE1465	19951010
W: AU, CA, CN, HU, JP, KR, NO, NZ, US				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
AU 9537409	A1	19960626	AU 1995-37409	19951010
AU 709152	B2	19990819		
EP 796111	A1	19970924	EP 1995-935348	19951010
EP 796111	B1	20030423		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
CN 1174511	A	19980225	CN 1995-196624	19951010
CN 1089008	B	20020814		
HU 77378	A2	19980428	HU 1997-1797	19951010
JP 10510250	T2	19981006	JP 1995-517228	19951010
JP 2002012782	A2	20020115	JP 2001-143906	19951010
EP 1181940	A2	20020227	EP 2001-250366	19951010
EP 1181940	A3	20020313		
EP 1181940	B1	20041222		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE				
AT 238071	E	20030515	AT 1995-935348	19951010
PT 796111	T	20030930	PT 1995-935348	19951010

ES 2198446	T3	20040201	ES 1995-935348		19951010
ZA 9509707	A	19960529	ZA 1995-9707		19951115
NO 9702509	A	19970602	NO 1997-2509		19970602
US 6083485	A	20000704	US 1997-849369		19971107
US 2001055567	A1	20011227	US 2001-850660		20010507
US 2003026763	A1	20030206	US 2002-180272		20020626
US 2003170179	A1	20030911	US 2003-368997		20030219
PRIORITY APPLN. INFO.:			DE 1994-4445065	A	19941207
			EP 1995-935348	A3	19951010
			JP 1995-517228	A2	19951010
			WO 1995-DE1465	W	19951010
			US 1997-849369	A1	19971107
			US 2000-518947	A3	20000306
			US 2001-850660	A1	20010507
			US 2002-180272	A1	20020626

OTHER SOURCE(S): MARPAT 125:81266
GI



I

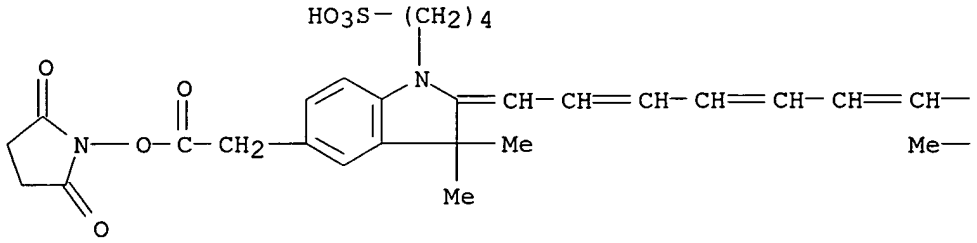
AB Conjugates B.scriptl.(FWn)m [B = biol. recognition mol. (mol. weight ≤30,000); F = dye; W = hydrophilic group to improve water solubility; .scriptl. = 0-6; n = 0-10; m = 1-100] are useful as contrast agents in fluorescent and transillumination diagnostic procedures in vivo. Recognition mol. B may bind specifically to selected cell populations or receptors, may be a nonspecifically binding macromol., or may become enriched in tissues, tumors, or blood. Thus, cyanine dye I was administered i.v. to mice bearing tumor LS174T. I became enriched in the tumor after 18 h, as shown by IR fluorescence during irradiation at 740 nm.

IT **178822-68-9P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(dye-biomol. **conjugates** as contrast agents for in-vivo near-IR diagnostic methods)

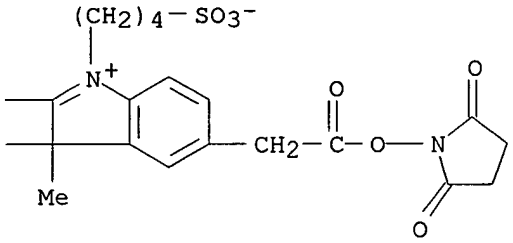
RN 178822-68-9 CAPLUS

CN 3H-Indolium, 5-[2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]-2-[7-[5-[2-[(2,5-dioxo-1-pyrrolidinyl)oxy]-2-oxoethyl]-1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]-1,3,5-heptatrienyl]-3,3-dimethyl-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

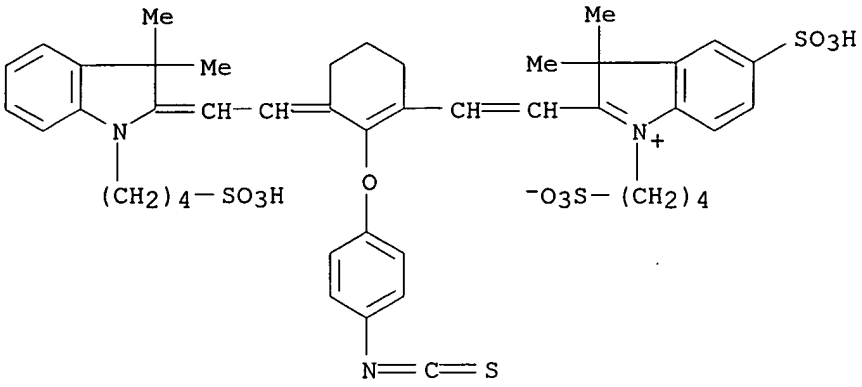


L69 ANSWER 14 OF 14 CAPLUS COPYRIGHT 2005 ACS on STN
ACCESSION NUMBER: 1994:696239 CAPLUS
DOCUMENT NUMBER: 121:296239
TITLE: A near IR biosensor for evanescent wave immunoassays
AUTHOR(S): Golden, Joel P.; Shriver-Lake, Lisa C.; Narayanan, N.; Patonay, Gabor; Ligler, Frances S.
CORPORATE SOURCE: Molecular Science and Engineering Naval Research Lab, Center Bio, Washington, DC, 20375, USA
SOURCE: Proceedings of SPIE-The International Society for Optical Engineering (1994), 2138(LONGER WAVELENGTH LASERS AND APPLICATIONS), 241-5
CODEN: PSISDG; ISSN: 0277-786X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Based upon a biosensor design which utilizes standard fluorescent dyes (FITC, TRITC), a new device has been developed which incorporates a laser diode light source to excite novel near IR (NIR) dyes. The purpose of switching to the NIR regime is to decrease the background fluorescence of biol. samples and to decrease the size and power requirements of the biosensor. New dyes which fluoresce in the NIR have been conjugated to protein antigen and immunoassays performed. Assay results using excitation at 780 nm are shown.

IT **159092-32-7D**, antibody **conjugates**
RL: ARG (Analytical reagent use); ANST (Analytical study); USES (Uses)
(near IR fluorimeter for evanescent wave immunoassays)
RN 159092-32-7 CAPLUS
CN 3H-Indolium, 2-[2-[3-[[1,3-dihydro-3,3-dimethyl-1-(4-sulfobutyl)-2H-indol-2-ylidene]ethylidene]-2-(4-isothiocyanatophenoxy)-1-cyclohexen-1-

yl]ethenyl]-3,3-dimethyl-5-sulfo-1-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)



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FILE 'CAOLD' ENTERED AT 12:19:49 ON 14 JAN 2005
L71 0 S L70

FILE 'USPATFULL' ENTERED AT 12:19:55 ON 14 JAN 2005
L72 8 S L70

L72 ANSWER 1 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2003:243770 USPATFULL
TITLE: Near infrared imaging agent
INVENTOR(S): Licha, Kai, Berlin, GERMANY, FEDERAL REPUBLIC OF
Riefke, Bjorn, Berlin, GERMANY, FEDERAL REPUBLIC OF
Semmler, Wolfhard, Glienicke, GERMANY, FEDERAL REPUBLIC OF
Speck, Ulrich, Berlin, GERMANY, FEDERAL REPUBLIC OF
Hilger, Christoph-Stephan, Berlin, GERMANY, FEDERAL REPUBLIC OF
PATENT ASSIGNEE(S): Institut fur Diagnostikforschung GMBH an der freien Universita (copy) (non-U.S. corporation)

	NUMBER	KIND	DATE

PATENT INFORMATION: US 2003170179 A1 20030911
APPLICATION INFO.: US 2003-368997 A1 20030219 (10)
RELATED APPLN. INFO.: Continuation of Ser. No. US 2002-180272, filed on 26 Jun 2002, PENDING Continuation of Ser. No. US 2001-850660, filed on 7 May 2001, PENDING Division of Ser. No. US 2000-518947, filed on 6 Mar 2000, GRANTED, Pat. No. US 6258340 Continuation of Ser. No. US 1997-849369, filed on 7 Nov 1997, GRANTED, Pat. No. US 6083485 A 371 of International Ser. No. WO 1997-DE9501465, filed on 6 Jun 1997, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard L. Byrne, Webb Ziesenheim Logsdon Orkin & Hanson, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 994
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 2 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2003:232034 USPATFULL
TITLE: Folate targeted enhanced tumor and folate receptor positive tissue optical imaging technology
INVENTOR(S): Jallad, Karim N., West Lafayette, IN, UNITED STATES
Kennedy, Michael D., West Lafayette, IN, UNITED STATES
Low, Philip S., West Lafayette, IN, UNITED STATES
Ben-Amotz, Dor, West Lafayette, IN, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003162234	A1	20030828
APPLICATION INFO.:	US 2003-360001	A1	20030206 (10)

	NUMBER	DATE
PRIORITY INFORMATION:	US 2002-355417P	20020207 (60)

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Intellectual Property Group, Bose McKinney & Evans LLP, 2700 First Indiana Plaza, 135 North Pennsylvania Street, Indianapolis, IN, 46204
NUMBER OF CLAIMS: 54

EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 13 Drawing Page(s)
LINE COUNT: 603
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB A method of differentiating tumors from healthy cells in tissue is disclosed. The method includes the steps of providing a marker-folate conjugate, placing the marker-folate conjugate in contact with the tissue and viewing the tissue.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 3 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2003:37119 USPATFULL
TITLE: In-vivo diagnostic method by means of near infrared radiation
INVENTOR(S): Licha, Kai, Berlin, GERMANY, FEDERAL REPUBLIC OF
Riefke, Bjorn, Berlin, GERMANY, FEDERAL REPUBLIC OF
Semmler, Wolfhard, Glienicke, GERMANY, FEDERAL REPUBLIC OF
Speck, Ulrich, Berlin, GERMANY, FEDERAL REPUBLIC OF
Hilger, Christopher -Stephen, Berlin, GERMANY, FEDERAL REPUBLIC OF
PATENT ASSIGNEE(S): Institut Fur Diagnostikforschung GmbH an der Freien Universitat Berlin (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2003026763	A1	20030206
APPLICATION INFO.:	US 2002-180272	A1	20020626 (10)

RELATED APPLN. INFO.: Continuation of Ser. No. US 2001-850660, filed on 7 May 2001, PENDING Division of Ser. No. US 2000-518947, filed on 6 Mar 2000, GRANTED, Pat. No. US 6258340 Continuation of Ser. No. US 1997-849369, filed on 7 Nov 1997, GRANTED, Pat. No. US 6083485 A 371 of International Ser. No. WO 1997-DE9501465, filed on 6 Jun 1997, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207

DOCUMENT TYPE: Utility
FILE SEGMENT: APPLICATION
LEGAL REPRESENTATIVE: Richard L. Byrne, Webb Ziesenheim Logsdon Orkin & Hanson, 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219
NUMBER OF CLAIMS: 8
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 1 Drawing Page(s)
LINE COUNT: 997
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 4 OF 8 USPATFULL on STN

ACCESSION NUMBER:	2002:230789 USPATFULL
TITLE:	Fluorescent cyanine labels containing a sulfamido linker arm
INVENTOR(S):	Caputo, Giuseppe, Turin, ITALY Della Ciana, Leopoldo, Lugo, ITALY
PATENT ASSIGNEE(S):	Innosense, S.r.l., ITALY (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6448008	B1	20020910
APPLICATION INFO.:	US 2000-609035		20000630 (9)

	NUMBER	DATE
PRIORITY INFORMATION:	EP 1999-112696	19990702

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Jones, W. Gary
ASSISTANT EXAMINER:	Souaya, Jehanne
LEGAL REPRESENTATIVE:	Myers Bigel Sibley & Sajovec, PA
NUMBER OF CLAIMS:	14
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	57 Drawing Figure(s); 57 Drawing Page(s)
LINE COUNT:	2027

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A fluorescent cyanine dye of the following general formula is disclosed: ##STR1##

wherein:

X.sub.1 and X.sub.2 are independently selected from the group consisting of --O--, --S--, --C(CH.sub.3).sub.2 or --C.dbd.CH.sub.2;

Y.sub.1 and Y.sub.2 are nonmetal atoms required to form a benzo-condensed or naphtho-condensed ring; Q is a conjugated moiety that increases the fluorescent quantum yield and the stability of the compound;

R.sub.1 and R.sub.2 are independently selected from the group consisting of H, C.sub.1-C.sub.4, alkyl, alkylensulfonic group or alkylensulfonate group wherein the alkylene group has from 1 to 4 carbon atoms; R3, R4 and R5 are independently selected from the group consisting of H, a sulfonic group, a sulfonate group, alkylensulfonic, alkylensulfonate and --SO.sub.2NH(CH.sub.2).sub.m--W--(CH.sub.2).sub.nZ, wherein alkylene has 1 to 4 carbon atoms, with the proviso that at least one of R.sub.1 to R.sub.5 contains a sulfonic or sulfonate group; W is absent or is a group selected from --SO.sub.2NH, --O--, --COO--, or --CONH--; n=0-12 and m=0-12 with the provisos that m+n≤12 and at least one of m and n≠0; and Z is, or contains a N, O or S nucleophile functionality or is, or contains a functionality capable of reacting with N, O or S nucleophiles. Nucleophile functionalities include --NH.sub.2, --OH, and --SH groups; groups capable of reacting with such

functionalities include --COCl, --COOCOR, --CONHNH.sub.2, N-hydroxysuccinimido esters, --NCS, --CHO, --COCH.sub.2I, phosphoramidite and maleimido.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 5 OF 8 USPATFULL on STN

ACCESSION NUMBER:	2001:237455 USPATFULL
TITLE:	In-vivo diagnostic method by means of near infrared radiation
INVENTOR(S):	Licha, Kai, Berlin, Germany, Federal Republic of Riefke, Bjorn, Berlin, Germany, Federal Republic of Semmler, Wolfhard, Glienicke, Germany, Federal Republic of Speck, Ulrich, Berlin, Germany, Federal Republic of Hilger, Christoph-Stephan, Berlin, Germany, Federal Republic of
PATENT ASSIGNEE(S):	Institut Fur Diagnostikforschung GmbH An Der Freien Universitat Berlin (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2001055567	A1	20011227
APPLICATION INFO.:	US 2001-850660	A1	20010507 (9)

RELATED APPLN. INFO.: Division of Ser. No. US 2000-518947, filed on 6 Mar 2000, GRANTED, Pat. No. US 6258340 Continuation of Ser. No. US 1997-849369, filed on 7 Nov 1997, GRANTED, Pat. No. US 6083485 A 371 of International Ser. No. WO 1997-DE9501465, filed on 6 Jun 1997, UNKNOWN

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207

DOCUMENT TYPE:	Utility
FILE SEGMENT:	APPLICATION
LEGAL REPRESENTATIVE:	Richard L. Byrne, Webb Ziesenheim Logsdon Orkin & Hanson, P.C., 700 Koppers Building, 436 Seventh Avenue, Pittsburgh, PA, 15219-1818
NUMBER OF CLAIMS:	8
EXEMPLARY CLAIM:	1
NUMBER OF DRAWINGS:	1 Drawing Page(s)
LINE COUNT:	994

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 6 OF 8 USPATFULL on STN

ACCESSION NUMBER:	2001:226779 USPATFULL
TITLE:	Optical diagnostic agents for diagnosis of neurodegenerative diseases by means of near infrared

radiation (NIR radiation)

INVENTOR(S): Turner, Jonathan, Berlin, Germany, Federal Republic of
Dyrks, Thomas, Hohenneuendorf, Germany, Federal Republic of
Semmler, Wolfhard, Berlin, Germany, Federal Republic of
Licha, Kai, Berlin, Germany, Federal Republic of
Riefke, Bjorn, Berlin, Germany, Federal Republic of

PATENT ASSIGNEE(S): Schering AG, Berkin, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6329531	B1	20011211	
	WO 9822146		19980528	
APPLICATION INFO.:	US 1999-308177		19991118	(9)
	WO 1997-DE2559		19971029	
			19991118	PCT 371 date
			19991118	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1996-19649971	19961119

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Higel, Floyd D.
LEGAL REPRESENTATIVE: Millen, White, Zelano & Branigan, P.C.
NUMBER OF CLAIMS: 21
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 2 Drawing Figure(s); 2 Drawing Page(s)
LINE COUNT: 839
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to compounds of formula (I): F.sub.m (--A1)(--B.sub.n)(--W.sub.o) wherein F is a colorant-signal molecule with a maximum absorption value ranging from 600-1200 nm; A is a β-amyloid plaque binding biomolecule; B is a β-amyloid plaque binding colorant; and W is a β-amyloid plaque binding hydrophilic low-molecular structural element. The invention also describes the use of these compounds in in vivo an din vitro diagnosis of neurodegenerative diseases such as Alzheimer's disease by means of near infra-red radiation (NIR radiation) as a constrasting agent in fluoresecence and transillumination diagnosis in the NIR range. Diagnostic agents containing said componenets are also disclosed.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 7 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2001:107426 USPATFULL
TITLE: In-vivo diagnostic method by near infrared radiation
INVENTOR(S): Licha, Kai, Berlin, Germany, Federal Republic of
Riefke, Bjorn, Berlin, Germany, Federal Republic of
Semmler, Wolfhard, Glienicke, Germany, Federal Republic of
Speck, Ulrich, Berlin, Germany, Federal Republic of
Hilger, Christoph-Stephan, Berlin, Germany, Federal Republic of
PATENT ASSIGNEE(S): Institut fur Diagnostikforschung GmbH, Berline,

Germany, Federal Republic of (non-U.S. corporation)
der Freien Universitat Berlin, Berline, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6258340	B1	20010710
APPLICATION INFO.:	US 2000-518947		20000306 (9)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 849369		

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207

DOCUMENT TYPE: Utility
FILE SEGMENT: GRANTED
PRIMARY EXAMINER: Jones, Dameron L.
LEGAL REPRESENTATIVE: Webb Ziesenheim Logsdon Orkin & Hanson, P.C.
NUMBER OF CLAIMS: 3
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 971
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to a in-vivo diagnostic method based on near infrared ra ation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L72 ANSWER 8 OF 8 USPATFULL on STN
ACCESSION NUMBER: 2000:83826 USPATFULL
TITLE: Near infrared radiation in-vivo diagnostic methods and dyes
INVENTOR(S): Licha, Kai, Berlin, Germany, Federal Republic of
Riefke, Bjorn, Berlin, Germany, Federal Republic of
Semmler, Wolfhard, Glienicke, Germany, Federal Republic of
Speck, Ulrich, Berlin, Germany, Federal Republic of
Hilger, Christoph-Stephan, Berlin, Germany, Federal Republic of
PATENT ASSIGNEE(S): Institut fur Diagnostikforschung GmbH, Berlin, Germany, Federal Republic of (non-U.S. corporation)
der Freien Universitat Berlin, Berlin, Germany, Federal Republic of (non-U.S. corporation)

	NUMBER	KIND	DATE	
PATENT INFORMATION:	US 6083485		20000704	
	WO 9617628		19960613	
APPLICATION INFO.:	US 1997-849369		19971107	(8)
	WO 1995-DE1465		19951010	
			19971107	PCT 371 date
			19971107	PCT 102(e) date

	NUMBER	DATE
PRIORITY INFORMATION:	DE 1994-4445065	19941207

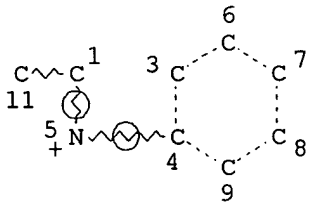
DOCUMENT TYPE: Utility
FILE SEGMENT: Granted
PRIMARY EXAMINER: Dees, Jose' G.
ASSISTANT EXAMINER: Jones, Dameron
LEGAL REPRESENTATIVE: Webb Ziesenheim Logsdon Orkin & Hanson, P.C.
NUMBER OF CLAIMS: 7
EXEMPLARY CLAIM: 1
NUMBER OF DRAWINGS: 6 Drawing Figure(s); 1 Drawing Page(s)
LINE COUNT: 1065
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB This invention relates to an in-vivo diagnostic method based on near infrared radiation (NIR radiation) that uses water-soluble dyes and their biomolecule adducts, each having specific photophysical and pharmaco-chemical properties, as a contrast medium for fluorescence and transillumination diagnostics in the NIR range, to new dyes and pharmaceuticals containing such dyes.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

(FILE 'MEDLINE, BIOSIS, EMBASE' ENTERED AT 12:20:15 ON 14 JAN 2005)
L73 0 S L70

(FILE 'MARPAT' ENTERED AT 12:20:35 ON 14 JAN 2005)
L74 STR



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DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

ATTRIBUTES SPECIFIED AT SEARCH-TIME:
ECLEVEL IS LIM ON ALL NODES
ALL RING(S) ARE ISOLATED

L76 0 SEA FILE=MARPAT SSS FUL L74 (MODIFIED ATTRIBUTES)

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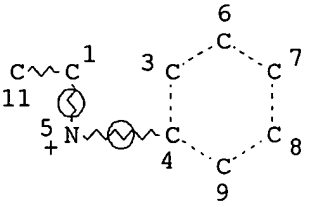
FILE 'MARPATPREV' ENTERED AT 12:22:08 ON 14 JAN 2005
L74 STR



NODE ATTRIBUTES:
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GRAPH ATTRIBUTES:
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NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE

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L77 0 SEA FILE=MARPATPREV SSS FUL L74 (MODIFIED ATTRIBUTES)

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